

**A thesis submitted to the Department of Environmental Sciences and Policy of
Central European University in part fulfilment of the
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**Strategic Environmental Assessment Follow-up: from Promise to Practice.
Case studies from the UK and Canada**

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ABSTRACT OF DISSERTATION submitted by:
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for the degree of Doctor of Philosophy and entitled: Strategic Environmental Assessment Follow-up: from Promise to Practice. Case studies from the UK and Canada

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If Strategic Environmental Assessment (SEA) is to deliver actual changes towards sustainability, it should shift its current focus from assessing *formulation* to influencing the *implementation* of strategic initiatives. In this light, *SEA follow-up*, presently viewed as an insignificant part of SEA, gains critical significance. Despite its promise, virtually no research on the subject has been published.

This research inquires whether SEA follow-up is feasible and relevant and, if so, when and how it can be effective and useful. It aims to propose and test a framework to examine, evaluate, and explain the current practice of SEA follow-up and its potential to facilitate more sustainable implementation of strategies, based on several case studies.

Through content analysis and analytical discourse, the research scrutinises the evolution of SEA relevant to follow-up. It examines rationales, challenges, promises, and other elements of SEA follow-up and formulates its assumptions. Drawing on this and on 'post-formulation' elements of three clusters of theories (i.e. planning and decision-making; strategy formation; and learning), the research proposes a framework for SEA follow-up that allows for its exploration, evaluation, and explanation. The framework is conceptualised into three broad dimensions - 'process' (procedural elements of SEA follow-up), 'structure' (organisational forms/processes of follow-up) and 'context' (a wider planning, decision-making context). Conceptual constituents for each dimension are specified and translated into testable variables.

The SEA follow-up framework is partly validated through the SEA follow-up e-survey and tested on six cases in the UK and Canada. The survey provides insights into the geographical spread of SEA follow-up, its most frequently designed and delivered elements, and most significant obstacles and benefits. It finds an expectedly high rate of envisioning some SEA follow-up, i.e. 30-60% of SEA cases. Despite this, the research shows that the actually conducted and researchable SEA follow-up cases are extremely rare. The case analysis reveals quite good overall performance of the selected SEA follow-up cases. It finds that regardless of how 'context' performs, the performance of SEA follow-up 'process' changes in the same way as the overall SEA follow-up performance. It reveals that design of follow-up is weaker elaborated than follow-up is implemented across cases. The research concludes that the way SEA follow-up is implemented, rather than designed, determines the performance of follow-up 'process' and 'structure' pointing to the 'emergent' nature of SEA follow-up.

By applying a specifically devised 'analytical hierarchy' for synthesising and interpreting the key theoretical and empirical findings in a wider SEA and theoretical context, the research reveals important explanatory linkages between the follow-up elements, derives key messages for advancing the SEA follow-up theory and practice, and makes recommendations. It draws multiple findings from analysing the similarities vs. differences, strengths vs. weaknesses, problems and benefits of the SEA follow-up cases. The research concludes that SEA follow-up can be feasible and relevant, and provides insights into its feasibility and relevance considerations. It contends that by tailoring the proposed SEA follow-up framework to a particular strategy-making/realisation process, organisational structure, and context SEA

follow-up can be made useful and effective. Moreover, the framework, linkages, messages, and recommendations can help shape or improve SEA follow-up.

Keywords: SEA follow-up, evaluative and explanatory framework, monitoring, evaluation, management, communication, scoping, strategy performance, strategy implementation and design, SEA follow-up and strategy integration, learning, UK, Canada.

*I would like to dedicate this work to my multi-national family
for their love, faith, forbearance, and support throughout
the years of my PhD studies.*

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LIST OF ABBREVIATIONS

Term	Explanation
3D-strategies	3 dimensions of strategies (vertical, horizontal and diagonal)
AA	Appropriate Assessment
APR	Annual Progress Reports
AQMA	Air Quality Management Area
BVPI	Best Value Performance Indicator
CASP	Core Area Sector Plan
CEAA	Canadian Environmental Assessment Agency
CCTV	Closed Circuit TV
CIDA	Canadian International Development Agency
CO ₂	Carbon Dioxide
CSA	Canadian Standards Association
DEFRA	Department for Environment Food and Rural Affairs
DETR	Department of the Environment, Transport and the Regions
DfES	Department for Education and Skills
DfT	Department for Transport
DfH	Department for Health
DoE	Department of the Environment
EA	Environmental Assessment
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EMS	Environmental Management System
EC	European Commission
EU	European Union
NEPA	National Environmental Protection Act (of the US)
FM	Forest Management
FMA	Forest Management Agreement
FMP	Forest Management Plan
FRMA	Forest Resources Management Act
HIA	Health Impact Assessment
IFLUP	Integrated Forest Land Use Plan
JLSP	Joint Lancashire Structure Plan
LCC	Lancashire County Council
LDF	Local Development Framework
LDD(s)	Local Development Document(s)
LPA	Local Planning Authority
LTP	Local Transport Plan
NCC	National Capital Commission
NCR	National Capital Region
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxide
NW	North West

Term	Explanation
NWRA	North West Regional Assembly
NIMBY	Not In My Back Yard
ODPM	Office of the Deputy Prime Minister
OECD	Organisation for Economic Cooperation and Development
PP (FMP)	Pasquia-Porcupine (Forest Management Plan)
PPG	Planning Policy Guidance
PPP	Policy, plan and program
PPS	Planning Policy Statement
PTSG	Planning and Transportation Strategy Group
RPB	Regional Planning Body
RSS	Regional Spatial Strategy
RTS	Regional Transport Strategy
SA	Sustainability Appraisal (Assessment)
SE	Saskatchewan Environment
SEA	Strategic Environmental Assessment
SEMP	Strategic Environmental Management Plan
SERM	Saskatchewan Environment and Resource Management
SD	Strategic Development
SIA	Sustainability Impact Assessment (similar to SA)
ToR	Terms of Reference
UN	United Nations
UNDP	United Nations Development Program
UNECE	United Nations Economic Commission for Europe
UK	United Kingdom
UTC	Urban Traffic Control
US	United States (of America)
VEC	Valued Environmental Components
WB	World Bank

CHAPTER 1. INTRODUCTION

This Chapter introduces the background to the research area, identifies the research focus and scope and explains the rationales for the research. It then presents the research aim and objectives with tasks and outlines the research methods and process. It discusses the originality of this research and ends with presenting its structure.

1.1 Background

Strategic environmental assessment (SEA) is the environmental assessment of policies, plans, programs¹ (PPP). It was first formally required by the US National Environmental Policy Act (NEPA)² (1969). The NEPA obliged the US Federal Government to assess environmental consequences of “major Federal actions” (USCA 1969, Sec. 102). Those included not only individual projects but also policies, plans and programs as well as other documents adopted by the Government, such as regulations, treaties, and international conventions (CEQ 1978). In the late 1980s, the process of assessing environmental impacts of ‘strategic’ initiatives – i.e. policies, plans, programs and virtually everything else ‘above’ the project level - was termed ‘Strategic Environmental Assessment’ (Wood & Djeddour 1989) and started gaining wider recognition. It was believed to address the shortcomings of and reinforce its precursor- the project-level Environmental Impact Assessment (EIA) through targeting higher-level decisions, dealing with cumulative impacts and expanding the boundaries of assessment. The explosive interest in ‘sustainable development’ in the early 1990s highlighted the need for tools to facilitate ‘strategic’ transformation of social systems towards sustainability. SEA was then perceived as capable of fulfilling this task and thus promoting sustainable development (see e.g., Dalal-Clayton & Sadler 2005; Sadler & Verheem 1996a; Stinchcombe & Gibson 2001). Thus, the idea of SEA spread to different countries and jurisdictions including the European ‘SEA’ Directive (2001)³, The Netherlands EA regulations, Canadian EA legislation, etc. The interest in SEA resulted in a rapid evolution of its concept and a wealth of the literature on its theoretical foundations and practice (e.g., Dalal-Clayton & Sadler 1998).

¹ These ‘strategic’ decision-making tiers are broadly defined as follows: *program* - a set of proposed activities or projects in a particular sector or area; *plan* - a set of coordinated actions with times priorities and measures to implement policy; and *policy* - a general course which inspires and guides actions and ongoing decision-making (see e.g., João 2005,4; Partidario & Fischer 2004).

² For the text of NEPA (1969, 42 U.S.C. 4321-4347) see <http://ceq.hss.doe.gov/nepa/nepanet.htm>

³ The European Union (EU) Directive 2001/42/EC “on the assessment of the effects of certain plans and programs on the environment”

At the same time the question whether SEA achieves any of its two fundamental objectives - improving project-level EIAs and promoting the transformation to sustainability - remains open. Addressing these questions requires new approaches to evaluating SEA and its effects and possible re-thinking of fundamental SEA assumptions or some of its key elements.

1.2 Rationales of the research and the research focus

SEA has multiple definitions reflecting various rationales and expectations of its users, advocates and other actors⁴ (Dalal-Clayton & Sadler 2005,19-21). One of the most cited definitions defines it as:

a systematic process for evaluating the environmental consequences of proposed policies, plans or programs...to ensure they are fully included and appropriately addressed at the earliest appropriate stage of decision-making on a par with economic and social considerations (adapted from Sadler & Verheem 1996a,27).

It shows that the focus of SEA is on *ex-ante evaluation*, as SEA seeks to *identify, predict, and evaluate* environmental (and socio-economic) consequences of strategic initiatives⁵ (Figure 1:1) and to influence PPPs *before* the consent or approval decisions are taken. Meanwhile, the environmental (and socio-economic) effects of the *implementation* of strategies are mostly out of the scope of traditionally defined SEA. However, in reality due to uncertainties intrinsic to strategic-level planning, gaps between formulation and implementation, and unexpected circumstances strategic initiatives frequently are implemented differently from what has been formulated. Thus, a considerable implementation gap exists between the predicted and actual impacts of formulated initiatives, between the formulated and implemented PPPs. Important questions arise: Are the actual impacts of initiatives tracked? Are the environmental and sustainability considerations promoted by SEAs safeguarded during the implementation of PPPs? If implementation actions change or fail, then why, and what are the consequences for the natural and socio-economic environment? Etc. Thus, there is the obvious need for *follow-up to SEA*.

SEA follow-up is the focus of this research (Figure 1:1). Similarly to EIA follow-up, it is defined as *the monitoring and evaluation of the impacts of a project or plan for management of, and communication about its environmental [& socio-economic] performance* (adapted from Morrison-Saunders & Arts 2004,4). SEA follow-up aims to follow the implementation

⁴ This has been especially obvious given that SEA has primarily been applied on an ad hoc, ‘need-driven’ basis, rather than within formal legal regimes (Abaza *et al.* 2004).

⁵ Strategic initiatives are broadly used in the SEA literature with reference to the objects of SEA; in this work, strategies, strategic initiatives, SEA objects, SEA’s initiatives, and PPPs are used as mutually substitutive terms.

of strategic initiatives in order to track their actual effects, deal with the unexpected and unpredicted, inform managerial decisions, support communication among stakeholders, and allow for evaluation, feedback and learning. Thus, SEA follow-up envisions generating and providing information for management and stimulating evaluative reflections and learning. Therefore, without SEA follow-up there would be (and actually is) not only the implementation gap, but also the information and knowledge gap.

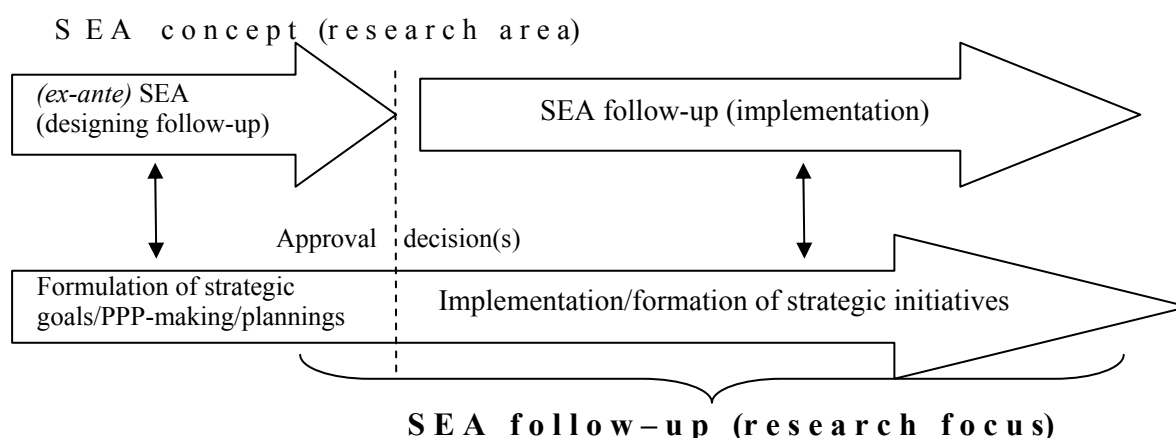


Figure 1:1 Research area and research focus

Furthermore, the global orientation towards sustainable development, which “require[s] deep structural changes in the economy, society, resource management and political life” (Dalal-Clayton *et al.* 1998,5) assumes new goals, expectations and promises for SEA. Under this pressure, the increased body of the SEA terminology and approaches has led to a confusion about its purpose (see e.g., Bina 2007; Fischer & Seaton 2002; Verheem & Tonk 2000) as well as about its actual role for decision-making, planning and impact assessment tools (Partidario 2000,657). The debates over those issues in the SEA literature have faced another challenge, that of the ambiguity about the SEA’s role in “‘contributing’ to sustainable development [which] is poorly understood and discussed” (Bina 2007,596). The lack of evidence about the post-decisional life of a PPP and its SEA might be one of the reasons for that. Given that PPP implementation can be emergent and divergent from the planned and that borders between implementation and formulation might be blurred (Cherp *et al.* 2007), the ability of SEA to meet its main objectives remains vague.

If SEA is to deliver actual changes and track the progress towards sustainability goals, it should shift its focus from assessing formulation to influencing the implementation of PPPs and their consequences. In this way, it will be able to secure the integration of environmental and sustainability considerations in PPPs throughout their implementation cycle. In this light, SEA follow-up, presently viewed as an insignificant part of the SEA concept with

some theoretical premises and limited practice, gains critical significance.

Despite its importance, SEA follow-up, in contrast to ex-ante SEA⁶, is rather insufficiently addressed in the current SEA literature. Only few research works attempt to look specifically into SEA follow-up, i.e. Arts (1998), Cherp *et al.* (forthcoming), Gachechiladze *et al.* (2009), Hanusch & Glasson (2008), Nilsson *et al.* (2009), Partidario & Fischer (2004), Partidario & Arts (2005), Persson & Nilsson (2007). Generally, they emphasise the need for SEA follow-up and speculate about its promise and potential. Overall, the SEA literature stresses that “consideration of SEA follow-up raises a lot of questions that cannot yet be answered because of lack of experience” (Partidario & Arts 2005,246) and that a “continuous discussion” of SEA follow-up is needed (Aschemann 2005,14; also, Cherp 2005b).

SEA follow-up practice lags farther behind its scarce theoretical underpinning. That is not to say that SEA has developed without any follow-up considerations in practical guidance. One of the SEA follow-up components, namely *monitoring*, is envisaged by some regulations, guidances, and manuals, though it is less discussed than any of the pre-decision SEA stages⁷. This does not necessarily mean that monitoring measures are prepared and, even if they are, they may not be accomplished in practice. As Therivel & Brown (1999,462) indicate, in reality, monitoring schemes specifically related to SEA are few and envisioned impacts are never formally monitored. As a result, little is known about the nature of SEA follow-up in practice, the real benefits for strategy improvement, and the challenges that emerge (Gachechiladze *et al.* 2009).

To summarise, SEA follow-up is essential if strategies are to be implemented in an environmentally acceptable way simultaneously fulfilling their aspirations towards sustainable development. The SEA literature acknowledges the need for, importance and promise of SEA follow-up. However, virtually no theoretical or empirical research has been conducted and published. The overarching question remains unanswered: *Is SEA follow-up feasible and relevant and, if so, in what kind of forms and under what kind of conditions can it be useful and effective?* Thus, this study is initiated in response to the recent calls for SEA follow-up research and to fill in an important yet “grey” area in the SEA theory and practice.

⁶ There is a vast literature on SEA covering, to name just few, theory and concepts of SEA (Elling 1997), reports and guidelines (EC 1998; EC 2005; ODPM 2003), case applications (Chaker *et al.* 2006; Salhofer *et al.* 2004) and bibliographic studies (Partidario 1996a), etc.

⁷ Procedurally SEA may encompass “scoping, identification and comparison of alternatives, evaluation based on technical and publicly adopted criteria, reporting, public participation, and monitoring and evaluation” (adapted from Partidario 2000,651).

1.3 Research Aims and objectives

The research aim is to **propose and test a framework for examining, evaluating, and explaining the current practice of SEA follow-up and its potential to facilitate more sustainable implementation of strategies, based on selected case studies**⁸. To attain this aim this work envisages completing 3 Objectives, each covering several tasks (Table 1-1).

Table 1-1 Research objectives and tasks

Objective 1. Examine the history, evolution and current status of SEA follow-up discourse and practice		
Task 1	a)	Discuss the evolution of SEA theory and practice relevant to the emergence of SEA follow-up
	b)	Examine the current SEA follow-up discourse and practice and formulate/identify the assumptions of the state-of-the-art SEA follow-up
Objective 2. Conceptualise SEA follow-up and propose an evaluative and explanatory SEA follow-up framework		
Task 2	a)	Analyse 1b) with reference to the contemporary SEA debate and other related theories
	b)	Based on 2a) propose an evaluative and explanatory framework for ‘successful’ SEA follow-up and suggest variables to enable its empirical testing
Objective 3. Test and validate the SEA follow-up framework and draw recommendations		
Task 3	a)	Examine in detail the application of SEA follow-up during the implementation of several strategic initiatives as per the framework developed in 2b)
	b)	Identify and analyse strengths and weaknesses, similarities and differences, problems and benefits of SEA follow-up across cases
	c)	Validate the findings of 3b) by synthesising them with the survey results and theoretical findings
	d)	Develop recommendations on conditions/ways for improving the application of SEA follow-up based on 3b) and 3c)

1.4 Process and methods of the research

This exploratory study deploys combined research methods, i.e. qualitative to a larger extent, e.g., literature review, e-contents analysis, interviews, case studies, and quantitative to a less extent, e.g., an online opinion survey. The research design considers the iterative nature of the research by devising preparatory, theoretical and empirical phases. The theoretical phase of the research is divided into three steps and aims to achieve Objectives 1 and 2, and Tasks 3c) and 3d), Objective 3. This phase deploys such methods as literature review, several adapted forms of contents analysis, analytical theoretical discourse. The empirical phase of the research is conducted to achieve Objective 3 and facilitate Tasks 1b). It uses such methods as field case studies, interviews, and electronic opinion survey.

The methodological approaches to literature screening, data collection, management, and analysis are presented in Chapter 3 and, if needed, at the beginning of each chapter. Chapter 3

⁸ In this research, facilitating more ‘sustainable’ implementation refers to the ability of SEA follow-up to assure that relevant environmental *and* socio-economic concerns are integrated in the implementation of strategies.

also presents some measures undertaken to reduce limitations and to assure the quality of the research by enhancing its credibility, dependability, and transferability.

1.5 Originality of the research

“Cross-fertilisation with other disciplines” (Bina 2007,602) is not new in the SEA concept, however the ideas of sustainability have intensified this. SEA has followed the developments in other tools and disciplines for many reasons, e.g., to advance the potential for the adoption of SEA in policy-making (Nitz & Brown 2001,329), to learn from policy-making (Tracey & Brown 2001), to obtain lessons from planning theory (e.g., Kørnøv & Thissen 2000; Lawrence 2000), to allow SEA practice and research to learn from the concepts of knowledge, planning, and decision-making (e.g., Dalkmann *et al.* 2004; Kørnøv & Thissen 2000), and to get insights from planning theory into conceptual problems of EA with rationality, power, value, and ethics (Richardson 2005). In the light of desired ‘strategic’ changes, some recent inquiries draw attention also to the relevance and importance of theories of learning and strategy formation to SEA (e.g., Cherp *et al.* 2007; Nooteboom 2007; WB 2005). Most of these works highlight a dynamic and stochastic nature of PPPs and, as a rule, focus on narrow aspects of the SEA concept. It is extremely rarely that they extend their inquiry to what happens to SEA objects after approval decision is granted and how SEA follow-up is viewed in this regard.

Meanwhile, these discourses and interactions with different disciplines rise new challenges for SEA follow-up. Emerging at the moment when the conceptual SEA thinking is extending, SEA follow-up has to accommodate the relevant elements of the related (and more profoundly developed) theories within its (potential) theoretical and analytical boundaries. The research thus faces many questions which have not been attempted yet. For instance: How can the trends that shape decision- and policy-making on PPPs and SEA be reflected in SEA follow-up? Which theories and concepts should be brought under a framework for SEA follow-up⁹? How can this multi-disciplinarity approach help conceptualise SEA follow-up in the context of aspirations towards sustainable development and strategic changes? How can SEA follow-up (potentially and practically) benefit from the contributions from different theories in order to be able to integrate environmental and sustainability concerns in PPPs?

⁹ The appropriateness of the theories is determined by the rationale and questions evolving around SEA follow-up and stems from the trends and assumptions of SEA. The actual scope of the theories to be engaged and methods to do that are discussed in Chapters 2, 3 and 4.

Thus, the originality of the research is not only that it intends to theoretically and empirically explore the undeveloped yet vital area of SEA and thus to contribute to its overall effectiveness, but also that it means to find the lines along which to go beyond the conventional SEA boundaries, benefit from the multidisciplinary discourse and enable environmentally sustainable PPP delivery.

1.6 Research outline

This PhD work consists of nine chapters. A brief description of each as per the objectives is provided in Table 1-2.

Table 1-2 Outline of the research

Chapters	Contents	Tasks, Objectives
Chapter 1	<ul style="list-style-type: none"> • Presents motivation and rationale for the research • Introduces research topic, its background, research problem and question • Defines the aim and objectives • Explains importance, significance, and originality of the research 	
Chapter 2	<ul style="list-style-type: none"> • Presents the purpose, rationales, problems, and promises of SEA follow-up through a review of the existing literature on the SEA concept • Describes the assumptions, rationales, tensions, trends, and milestones of the SEA discourse that influence SEA follow-up • Identifies SEA-related theories that transcend to SEA follow-up • Formulates/derives assumptions of SEA follow-up 	Tasks 1a) and 1b), Obj. 1
Chapter 3	<ul style="list-style-type: none"> • Elaborates on the methods and techniques for the overall research • Considers research quality issues and limitations 	
Chapter 4	<ul style="list-style-type: none"> • Examines SEA follow-up with reference to the assumptions, issues and trends debated in SEA and the related theories and concepts • Develops an evaluative and explanatory framework for SEA follow-up • Proposes framework variables for empirical evaluation. 	Tasks 2a) and 2b), Obj. 2
Chapter 5	<ul style="list-style-type: none"> • Analyses the electronic opinion survey's data 	Task 1b), Obj. 1; Tasks 3c) & 3d), Obj. 3
Chapter 6	<ul style="list-style-type: none"> • Presents the summary of the analysis of six case studies in accordance to the SEA follow-up framework 	Task 3a), Obj. 3
Chapter 7	<ul style="list-style-type: none"> • Analyses SEA follow-up performance across cases including case-ordered performance, SEA follow-up dimensions-wise analysis across cases, differences between design and implementation performance, etc. • Identifies and analyses strengths vs. weaknesses and similarities vs. differences according to the SEA follow-up framework's dimensions and across cases • Identifies and analyses problems and benefits of SEA follow-up across cases 	Tasks 3b) and 3c), Obj. 3
Chapter 8	<ul style="list-style-type: none"> • Reveals and discusses recurrent linkages between the proposed or emerging elements of SEA follow-up framework across cases • Synthesises the survey findings with the corresponding findings of the cross-case analysis and theoretical background (and revisits the theories and concepts for explanations as needed) • Draws recommendations for improving the SEA follow-up application 	Tasks 3c) (cont.) and 3d), Obj. 3
Chapter 9	<ul style="list-style-type: none"> • Summarises the overall thesis according to its three Objectives • Demonstrates several contribution streams of the research • Specifies avenues for further research 	

CHAPTER 2. THE WAY TO SEA FOLLOW-UP

This Chapter explores the emergence conditions and state-of-the-art of SEA follow-up by discussing the evolution of the SEA theory and practice in the context of related theories¹⁰. It consists of two sections. The first section unveils the rationales behind SEA and examines its fundamental assumptions, evolving objectives, tensions, and trends. It establishes links between the SEA trends and the related theories, and against this background critically discusses the assumptions of SEA and reviews the current understanding of SEA's effectiveness and approaches to its evaluation. The second section looks into the rationales for and current state of SEA follow-up. It reviews the promises and challenges of follow-up in strategic decision-making and identifies its underlying assumptions and the questions that need to be explored for its conceptualisation.

2.1 Evolution of SEA theory and practice

2.1.1 From EIA to SEA

Both SEA and EIA conceptually originate from the NEPA (1969), which required *ex-ante* EA of actions, but did not distinguish between the application levels (Fischer & Seaton 2002,33). However, from 1969 to the early 1990s, it was EIA of individual projects that was more extensively exercised: "...in practice, NEPA based assessment mainly revolved around project proposals" (Fischer 2007,10). There could be several explanations of this. First, EIA was a tool needed at that particular time. It was the result of the growing ecocentric concerns of the 1960s that challenged the ability of science and managerial ingenuity to create economic growth and overcome environmental problems (Petts 1999,3). Second, from the technocratic point of view the EIA procedure was more formalised and feasible. To assess the impacts of tangible physical developments appeared to be easier than those of vague visions or decisions that might not result in implementation actions. Third, the enforcement and spread of EIA was triggered by many lawsuits launched by environmental activists, who saw in the NEPA a vital vehicle for preventing environmental harm¹¹ (Glasson *et al.* 2005,29).

¹⁰ This Chapter aims to achieve Task 1a), Objective 1 (Table 1-1).

¹¹ The NEPA intended to coerce the federal government, widely criticised as a key contributor to environmental degradation, to consider the environmental effects of its actions (Phillips 1997,12-13). The reaction of the federal agencies to its requirements varied "from avoidance to amateurism" (Wood 2003,20) and they were often sued

A decade of extensive application of EIA in many countries¹² brought more clarity about its contents and process and revealed substantial limitations, making a case for another, 'higher-order' EA approach. The idea of SEA revived "in the light of disillusionment over the ability of [EIA] to assist sound environmental decision-making from policy through to projects" (Partidario 1999,60). Many aspects were named as restricting the effectiveness of EIA¹³: its reactive character that failed to address earlier and more significant decisions; its inability to guarantee efficient consideration of the environment in policy-making and planning; the inadequate accounting for cumulative impacts caused by several projects or by indirect effects and ancillary developments; the narrow scope and type of the projects, the limited vision of alternatives, and the limited information required for the assessment (e.g., Alshuwaikhat 2005; Glasson *et al.* 1994; Sadler 1999; Therivel *et al.* 1992; Thissen 2000b).

Yet, why could not EIA methodologically and conceptually develop further to cope with those limitations if, theoretically and according to the NEPA, it covered both project- and higher-level actions? In fact, EIA has expanded to tackle many of those issues, such as social and economic impacts alongside ecological ones, consideration of alternatives and cumulative impacts, and large-scale and global issues, such as acid rains, biodiversity changes, or climate change. However, practice has demonstrated that whatever upgraded methods or techniques have been used, the limitations have still pertained making a solid case for a *different type and different level* of analysis. As Clark (2000,16-22) has pointed out "while high quality assessment of cumulative effects makes EIA richer...and assessment of social impacts makes EIA deeper, SEA is a different kind of analysis....Recognising this difference may be a crucial condition for understanding SEA and allow process and practice improvement".

for decisions not to prepare an Environmental Impact Statements (EIS), for inadequate EISs, and for decisions whether to proceed or not with the projects based on particular EISs (Orloff (1980) cited in Glasson (2005, 29)).

¹² Following the NEPA, many countries recognised the need for EA: Germany and France introduced EIA legislation in 1975 and 1976 respectively, Canada established EA in 1973 (amended 1977, 1987), Austria and New Zealand in 1974, etc. (e.g., see Dalal-Clayton & Sadler 2005; Fischer & Seaton 2002). Institutionalization of EIA has been also stimulated by the EU Directive 85/337/EC (amended Directive 97/11/EC, in force since March 1999). EIA has gained an international acknowledgment both in developed and developing countries (Ogunba 2004,643) and is in place in more than 100 countries (e.g., Sadler 2004).

¹³ Overall, the limitations have been grouped around three axes: 1) the timing of decisions: at policy and planning levels a cascade of small, incremental decisions happens in the absence of a systematic impact assessment approach, in a way that could subsequently influence project environmental planning and design; 2) the nature of decisions: the less concrete and more vague nature of policy and planning decisions is a significant constraint to the operation of a pragmatic and technocratic tool such as EIA; 3) the level of information: project EIA requires levels of information and certainty that do not exist and could not be provided to the same extent, at policy and planning levels (adapted from Partidario 1999,61; Partidario 2000,651).

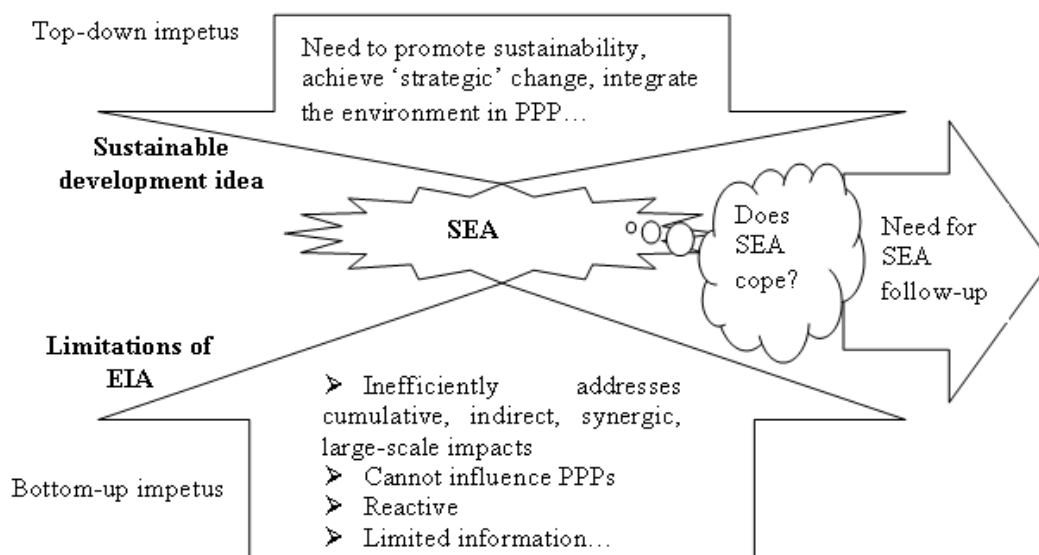


Figure 2:1 Evolution of SEA at junction of two impetuses

Thus, emerged in the light of EIA problems, SEA was no way a “replacement of EIA” (Nooteboom 2000a,152). Nor was it a solution to all EIA problems (Partidario 2000,652). Rather, it has developed as an approach complementary to EIA to ensure sufficient attention to environmental concerns at different decision levels (Thissen 2000a,174).

Hence, *one of the two grand rationales behind the evolution of SEA is its capacity to complement, reinforce, and benefit the project level EIA*¹⁴. This rationale is otherwise called a ‘bottom-up’ impetus (Figure 2:1), as it came from the development of EIA and triggered the up-scaling of environmental assessment (EA) application from project to policy level of decision-making (Sadler 2005a,11). Its collision with the ‘top-down’ impetus behind SEA is what has caused the explosive spread of SEA.

2.1.2 From sustainable development to advancement of SEA

The need for the SEA concept does not stem only from the shortcomings of EIA or a desire to have a supplementary tool to translate the EIA principles ‘up-stream’. These stimulated an ad-hoc and de facto practice of SEA and ‘programmatic’ EIA of the NEPA through the 1970s and early 1980s, but insignificantly, until the idea of sustainability¹⁵ came along. The concept

¹⁴ Sadler (1998a, cited in Partidario (2000,650)) has summarised the aims and benefits of SEA in relation to EIA: “SEA can strengthen and streamline project EIA by: early identification of potential impacts and cumulative effects; addressing strategic issues related to the justification and location of proposals, and reducing the time and effort necessary to assess individual schemes”.

¹⁵ The most commonly cited definition of ‘sustainable development’ is from the Brundtland’s Report - meeting the needs of the present generation without compromising those of future generations (UNWCED 1987). Different definitions are proposed to operationalise the concept, e.g., “Sustainable development is development which leads to improvement in the quality of life within all social groups of the present generation, without

was given a “real political momentum” (Klane & Albrecht 2005,19) in the United Nations Brundtland Commission Report (UNWCED 1987). It was then widely propagated at the 1992 United Nations Conference on Environment and Development, which adopted the Rio Declaration and Agenda 21¹⁶. The concept of sustainable development has required cardinal – ‘strategic’- changes in political and socio-economic systems with equal weights to be given to the interests of environmental protection, social justice, and economic development. It has become a global policy that has placed SEA and EIA in the forefront¹⁷ as key instruments for promoting the spirit of sustainability. Sustainability has stressed the key role of SEA for balancing environmental and socio-economic objectives of usually highly politicised PPPs, and for “moving... PPPs...towards sustainable outcomes” (Brown & Therivel 2000,184). Furthermore, “impact assessment professionals, sustainable development experts and international organisations agree that impact assessment has a major role to play in the introduction of sustainable development in our societies” (Devuyst 2000,69). The overarching promise of SEA has been associated with *a better integration of the environment in strategies and with strategic changes towards sustainable development* that it can help achieve.

Given such a great impetus, SEA has started spreading to many countries and jurisdictions, in many situations being supported by the EA legislation (e.g., Dalal-Clayton & Sadler 2005; Marsden & De Mulder 2005; Therivel *et al.* 1992). In Europe, the Fifth Environmental Action Programme (1993-2000) “Towards Sustainability”¹⁸ has provided a stronger rationale for the EU ‘SEA’ Directive 2001/42/EC, which after long discussions came into force in 2004 to formalise SEA¹⁹. SEA is being further advanced through the UN SEA Protocol²⁰ of 2003 to

compromising the development potential of future generations, while living within the carrying capacity of all components of the global ecosystem” (Kobus 2005,465).

¹⁶ The Rio Declaration sets out a set of principles, some of which relate to sustainability and promote the precautionary approach in environmental issues, access to environmental information, and citizen participation in decision-making (UNCED 1992). Agenda 21 is a comprehensive plan of global, national and local actions to attain sustainable development with a special focus on community-based and -driven actions (UNWCED 1992).

¹⁷ The Rio Declaration, Principle 17, states that EIA “as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority” (UNCED 1992).

¹⁸ Fifth Environmental Action Programme sets long-term strategic goals for the EU environmental policy for 1993-2000. It aims to achieve sustainable development through: integrating the environmental dimension into all major policy areas; widening the range of policy instruments (education and information; financial support mechanisms, etc.), and sharing responsibility among all actors. The Programme encompasses 5 ‘target sectors’: industry, energy, transport, agriculture, and tourism; and seven ‘themes’: climate change, biodiversity, acidification/air quality, urban environment, coastal zones, waste management, and water resources (EC 1993).

¹⁹ In fact, there were three proposals by the Commission to introduce SEA in European legislation, one in 1990 and two in April and September of 1995. The proposals required SEA for policies, plans and programs, which did not satisfy some Member-states, and eventually the scope of the Directive had to be changed to give up policies (Klane & Albrecht 2005,23).

the UN Espoo Convention, 1991 (EC 2005). Currently, more than 25 countries exercise formal SEA provisions, i.e. the UNECE region: Europe and North America (Dalal-Clayton & Sadler 2005,29). Developing countries strive to establish the SEA systems with the assistance of international organisations, such as the World Bank (WB), the Organisation for Economic Cooperation and Development (OECD) or the governments of foreign states.

Thus, *the second grand ‘top-down’ impetus for SEA came from the sustainable development agenda* (Figure 2:1), expressed in international agreements and policies (e.g., Sadler 2005a,11). The sustainability idea has called for a more ‘strategic’ and integrated approach to PPP and decision-making. SEA has been recognised as being such as an approach, enabling “the operationalisation of sustainability principles” (Alshuwaikhat 2005,311).

2.1.3 Debates and trends through SEA chronology

The broad rationales behind SEA have allowed its users to differently interpret its roles and aims. On the one hand, this has diversified SEA theory and practice, but on the other hand, it has given rise to a number of tensions and debatable issues.

Over the course of time, the elements of the SEA concept, such as definitions, principles, purposes, aims, and benefits have altered according to the expectations attached to it. The SEA objectives have advanced from more straightforward ones, e.g., “evaluate environmental impacts of [PPP]...and its alternatives” (Therivel *et al.* 1992,19-20), to more complex ones, e.g., “support decision-making towards achieving sustainable development” (Noble 2002,3). Bina (2003,22-23) has identified as many as 30 basic aims and roles of SEA over the period 1992-2003. Generally put, the aims and objectives of SEA (and respectively benefits that may result from SEA) are to: i) strengthen project-level EIA; ii) influence (improve) higher tier decision-making and PPP formulation by taking into account wider environmental impacts and alternatives; iii) support decision-making towards sustainability; iv) increase participation of a wider range of actors in PPP and strategic decision-making, and v) create new knowledge and a learning process (e.g., in Fischer 2007; Noble 2002; Partidario 2000; Therivel 2004).

Different aims or the same ones but in different contexts, have instigated various tailored approaches and procedures. However, the variety of approaches has led “to confusion as to

²⁰ The SEA Protocol differently from the SEA Directive, which requires SEA of plans and programs only, also addresses policies and legislation; however, their SEA is not mandatory. Presently, the SEA Protocol is not in force (UNECE 2003). It supplements the UN Economic Commission for Europe’s Convention on EIA in a Transboundary Context, which was signed by its Parties in 1991 and came in force in 1997 (UNECE 1991).

the nature and form of SEA” (Fischer & Seaton 2002,31) and “may lead to confusion among...politicians and...senior decision makers about what SEA is” (Verheem & Tonk 2000,177). Very few works address the reasons, nature, and types of confusion about SEA²¹. There seems to be a fragile consensus in that the diversity of approaches and procedures in SEA is needed as “design for purpose enhances the effectiveness of SEA” (Verheem & Tonk 2000,177). However, those approaches and procedures should presumably be deployed under “a structured and systematic methodological assessment framework” (Noble 2002,14). The SEA literature thus strives to both propagate the variety of approaches in SEA and advocate structured methodologies that would allow for its feasibility and comprehensiveness.

In the wake of such a practically challenging endeavour, some points of contention have arisen regarding the process, procedure, and substance of SEA (Table 2-1). They primarily revolve around *EIA-based vs. policy-based approaches to SEA*, *sustainability-driven vs. environmental SEA*, *technocratic-led vs. participatory SEA*, *fully integrated SEA process vs. more separate SEA*, and *disputes about the need for methodologically more sound vs. conceptually better grounded SEA*.

Table 2-1 Main debates and tensions in and about SEA

	Debate theme	Explanations	Search for consensus
1	Advocates of EIA-based approaches to SEA vs. those in favour of specific appraisal-and/or policy-based SEA procedures. (Abaza et al. 2004; Chaker et al. 2006; Fischer 2003; Kjørven & Lindhjem 2002; Partadario & Clark 2000; Sadler 1998b; Sadler 2005c).	EIA-based SEA approaches focus on identifying and mitigating the environmental effects of implementing strategic proposals and alternatives using EIA procedure and methodology, often as a separate activity. By contrast, appraisal-based SEA is more proactive and iterative, facilitating the integration of environmental aims into the overall PPP-making. It is often called ‘objectives-led’ contrary to the EIA-based ‘effects-based’ or ‘baseline-led’ approach.	Debate is being smoothened by the application of both methods to strategic levels of decision-making.
2	Sustainability (pillars)-based SEA vs. classical environmental SEA (Bina 2007; Dalal-Clayton & Sadler 2005; Devuyt 2000; Fischer & Seaton 2002; Marsden & De Mulder 2005; Morrison-Saunders & Fischer 2006; Therivel 2004; Verheem & Tonk 2000)	The classical SEA seeks to integrate environmental concerns into PPP-making with an emphasis on alternatives and mitigation of effects of implementation. The sustainability-driven SEA (also referred to as Integrated EA or Sustainability Impact Assessment (SIA)) identifies the key environmental and socio-economic objectives and assesses the significance of impacts against them to clarify the trade-offs.	It is suggested that sustainability can establish a framework for strategies, while SEA “must understand and integrate [sustainability] principles” (Partidario 2000,651).
3	Technocratic (expert-driven) approach to SEA vs.	The technocratic approach to SEA is based on a rational, expert-driven framing of assessment as per	A potential resolution is seen in mixing the

²¹ In one such work, Fischer & Seaton (2002,39) argue that four characteristics of SEA give rise to confusion: poor empirical understanding of assessment practice - SEA procedure, substantive aspects of SEA application, integration into the underlying PPPs, and the role of the sector of its application.

	Debate theme	Explanations	Search for consensus
	‘communicative’ (policy, social and political) approaches to SEA <i>(Cassios 1997; Elling 1997; Esson et al. 2004; Kørnøv & Thissen 2000; Richardson 2005; Sheate et al. 2003; Tracey & Brown 2001)</i>	the opinions and professional knowledge of experts through communication occurring mostly between the proponents and the expert group. This approach is criticised for not being well related to the real world context and lacking transparency. Meanwhile, at strategic level participatory and communicative processes become more important than technical methodologies. The participative approaches require that all affected parties are presented in the SEA process as part of a project team on a par with expert teams.	approaches under a strong leadership
4	Integrated (flexible) SEA process vs. strictly systematic, step-by-step SEA (could be a separate process) <i>(Dalal-Clayton & Sadler 2005; Fischer 2003; Hilden et al. 2004)</i>	Integrated SEA provides for a flexible and adaptive process that considers administrative concerns, availability of data, and the scope of the environment to better suit the interests of stakeholders. A flexible approach in SEA implies its ad hoc application to the planning process, adapting it to the decision-making purpose, etc. The systematic process is understood in two ways: within the SEA process and for choosing methods for SEA. The former is similar to the EIA-inspired SEA. The latter claims that a more systematic system, achieved e.g., through tiering ²² , could make SEA application more clear-cut, providing decision-makers with a clear idea of what can be achieved by a certain SEA approach.	This dispute has a potential in integrity, e.g., “SEA at the most strategic level needs to be flexible in relating to the policy-making process, but can bring significant advantages by providing a more systematic approach to the consideration of environmental issues” (Sheate et al. 2003,2).
5	Gaps in the SEA methodology vs. deficiency in the SEA theory and concept <i>(Bina 2003; Dalal-Clayton & Sadler 2005; Noble 2002; Therivel 2004)</i>	The impediments in SEA application are seen by some scholars and practitioners as results of the methodological omissions, when SEA methodologies are not well developed and not commonly agreed. Others suppose that the theoretical underpinning of SEA is far behind its practical implementation.	Cross-reference between the parallel works of both groups may be beneficial.

The debates emerge in different periods of the SEA history; but they are repeatedly discussed in the SEA literature throughout its lifetime (Table 2-2; see the full SEA chronology in Appendix A). Milestones in the SEA chronology reflect the ideas behind the debates, some of which have grown into trends. For instance, as the timeline shows (Table 2-2), on the one hand, the advent of the sustainability notion in the late 1990s intensified interest towards SEA (as discussed above). On the other hand, it triggered more tensions in SEA for at least two reasons. First, the streams favouring three-pillar EA may downgrade environmental considerations in assessment and decision-making processes (Morrison-Saunders & Fischer 2006,20). Second, calls for more flexibility, transparency, closer collaboration, and wider public participation induce a new pressure on SEA resulting in many ‘innovative’ approaches

²² The concepts of tiering and decision-making hierarchy are discussed further in Point 2.2.1.

and thus more confusion. Yet, the progressively increasing importance of sustainable development for SEA remains one of the most persistent trends nowadays (e.g., Bina 2003).

Table 2-2 Development stages of SEA and SEA follow-up and accompanying debates

1970	1975	1980	1985	1990	1995	2000	2005	2008...
Formative stage				Formalisation stage		Extension stage		
Large scale EAs		Term ‘SEA’ coined; SEA practice starts growing		SEA as a tool for sustainable development	‘SEA’ family tools spread	SEA cases reported	Search for effective & systematic ways for SEA	
‘Follow-up’ coined		Follow-up to EIA acknowledged, explored Follow-up to SEA acknowledged, not tracked				Monitoring reported	SEA follow-up must be researched	
EIA-based vs. policy-based SEA								
technocratic-led vs. participatory SEA								
sustainability-driven vs. environmental SEA								
integrated (flexible) vs. separate (systematic) SEA								
methodologically vs. conceptually sound SEA								

NB: The chronology draws from Appendix A; the timing of debates is approximate.

Other trends observable from the early applications of SEA have focused on the attempts to clarify the nature of relationships between SEA and its object and between SEA and a wider context. As the SEA practice grew (the 1990s) and the experiences and results of conducted SEAs started being reported (the 2000s, Table 2-2), the identification of these characteristics of SEA systems became possible. In this regard three dimensions have been distinguished (based on Partidario 1999,65-7):

- *the policy-making/planning dimension* (the structure, and response, of the established policy-making/planning systems to the incorporation of SEA),
- *the decision-making dimension* (the options and priorities in development decision-making that influence the nature of SEA), and
- *the EA dimension* (procedures and forms that SEA takes, from EIA-based or technocratic to policy-based or participatory).

The two former relate, to a larger degree, to the context of SEA, the understanding of which is essential for improving the SEA process. The latter takes the focus back to the debates over approaches, procedures, and purpose of SEA (e.g., debates 1, 2, 4, Table 2-1). Based on the research of those relations, two trends have been identified (Bina 2003,38): “a reduced emphasis on...assessment of impact...and an increased attention to SEA’s contribution to, and integration in, the ‘formulation’ process of strategic initiatives” and “a shift from the traditional ‘object’ of assessment (draft PPPs) towards a...view of the policy process and its

political dimension, with special attention to decision-making”. During the last five years, these trends have not lost their adequacy and continue to be explored in the SEA literature.

The era of ‘searching for more systematic and effective ways for SEA’ (the 1990s-2000s, [Table 2-2](#)) indicates a growing interest in the role of knowledge and learning for negotiation and communication in SEA. Those have been put at the heart of the SEA process: the “ultimate role of SEA should be the mediation between relevant perceptions of the problem” (Vicente & Partidario 2006,22). Learning and knowledge may be viewed from different angles: those for SEA, those during SEA, and those as a benefit resulting from SEA. As Fischer (2007,22) explains: “...effectiveness [of SEA] is thought to be connected with three main functions, namely: SEA provides decision makers with better information; SEA enables attitudes and perceptions to change through participation and involvement; and SEA changes established routines. All these functions...are closely related to individual as well as institutional learning”. Thus, the SEA actors use existent knowledge and learn for the process. During the SEA process, they ‘learn-by-doing’ through negotiations, that, ultimately might result in changing the existent routine and creation of knowledge.

Thus, SEA owes the evolution of its theory and practice to the potential to complement, reinforce, and benefit the project level EIA and to integrate sustainability in PPPs leading them towards ‘strategic’ changes. Attempts to develop ways to do this have resulted in numerous interpretations, approaches, and aims of SEA, which in turn have led to SEA’s life-long debates. Those resonate with the underlying trends in SEA, namely:

- 1) increasing stress on SEA’s integration with, and influence on, the formulation of PPPs (Bina 2003,38);
- 2) growing focus on promoting sustainable development (Bina 2003,38);
- 3) more emphasis on considering political, policy- and decision-making processes (Bina 2003,38; Jiliberto 2004b,24), and
- 4) rising importance of creating a learning process and knowledge.

There has been very little critical evaluation of similar issues central to the successful implementation of SEA concepts and practice (Nitz & Brown 2001,332). It is only during the last few years that the conceptualisation of SEA’s role in policy-making and promoting

sustainability has been attempted. So far, despite the growing SEA literature²³ and experience, the extent of success of SEA in achieving the expectations of society remains vague. SEA scholars often question themselves as to whether SEA “can contribute to reaching more sustainable societies” (see Devuyst 2000,68).

2.2 The SEA discourse in the context of the related disciplines

SEA operates on the convergence of science and policy disciplines being ‘fertilised’ by both. As the above debates show (Table 2-1), it moves between two extremes in order to meet the goals of PPPs and their actors at a particular planning level. The ‘strategic object’ of SEA guides it more towards a broader view of policy and decision-making (see the trends above). This is progressively intensified by the challenges of sustainability and the search for novel explanations and approaches in SEA associated with them. Insights from the related and more developed theories²⁴ have enriched SEA theory and practice along its evolution.

The most significant uptake of SEA has been from the concepts and theories of policy-making (policy analysis), planning, and decision-making. Recently, the theories of strategy formation and learning have also been involved in the SEA discourse. The further discussion reviews the lessons drawn by SEA from three clusters of theories, which are closely bound to the contemporary trends in SEA: 1) theories of planning/policy-and decision-making allow researchers to look into the relation between SEA and its ‘object’ and to critically address initially simplistic assumptions of SEA, such as those of rational planning, linear policy-making (trends 1 and 3 above); 2) theories of strategy formation focus on ‘strategic changes’ that SEA is supposed to deliver (trend 2), while making it possible to elaborate on the assumptions of SEA; and 3) theories of learning and information management consider the learning components and assumptions of SEA from different perspectives, but importantly help focus on the ways learning and knowledge can be managed to allow SEA to guide/influence PPPs towards desired ‘strategic changes’ (trend 4).

²³ Since the 1990s the SEA literature has grown to cover (i) theoretical and conceptual aspects of SEA (e.g., Abaza *et al.* 2004; Ahmed *et al.* 2005; Dalal-Clayton & Sadler 2005; Partidario 1996b; Rauschmayer & Risse 2005; Therivel 2004); (ii) legislation, manuals, guidelines, etc. (e.g., CEAA 1994; DGTREN 2005; DoWEFT 1996; EC 1998; ODPM 2003; UNECE & RECCEE 2006; UNEP 2003; WB 1993-1998); & (iii) empirical studies, reviews (e.g., Esson *et al.* 2004; Fischer 2004b; Hedo & Bina 1999; Kjørven & Lindhjem 2002; Lerman & Kaarik 1997; Liou *et al.* 2006; Palerm 2005; Sadler 1996; Stoeglehner 2004).

²⁴ Chapter 1, Point 1.5 also explains the reasons why SEA has followed the developments in other disciplines.

2.2.1 Messages from planning, policy analysis and decision-making

The planning notions, inevitably mixed up with policy- and decision-making have been discussed in the SEA literature since its launch (see e.g., Alshuwaikhat & Aina 2005; Fischer & Seaton 2002; Hilden *et al.* 2004; Lichfield 1997; Richardson 2005; Sadler & Verheem 1996b; Therivel & Partidario 1996). As Fischer (2003,156) contends “over the past 30 years the EA community has tended to follow policy analysis, decision-making and planning theory debates somewhat from the sideline...”.

The ideas of rational-comprehensive decision-making were dominant at the advent of EIA/SEA and still remain central in much of EA practice today (Nitz & Brown 2001,333). This implied that SEA was influenced by the assumptions of rationality²⁵, namely complete information availability and as a result better individual decision-making. Those assumptions have been criticised as being rather unrealistic and not reflecting the complexity of actual decision-making.

The rationality of decisions has been questioned in relation to SEA and the policy-making process. SEA has often been depicted as a linear process in the classical rational or problem-led planning. The latter incorporates SEA by forcing it to follow a rather rigid sequence of activities towards a final objective and outcome (Partidario 1999,66). The practice appears to be quite indistinct as planning and policy-making in general might be a cyclical, linear or often a hybrid type of process adopting more flexible communicative approaches. Meanwhile, “a proper integration of SEA into policy-making processes is considered critical to the success of SEA” (Kørnøv & Thissen 2000,191). To address this challenge different SEA-PPPs interaction modes ranging from zero to full integration have been proposed (Box 2-1):

Box 2-1 Integration modes of SEA and PPPs

- SEA and PPP are absolutely independent, i.e. SEA is done as a tick-box exercise (Fischer 2007,37 and also João (2005,9));
- SEA and PPP are independent processes; SEA feeds into the PPP making process at one stage only to inform the consent decision (Fischer 2007,37) (also known as “stapled model” (Glasson & Gosling 2001,91));
- SEA and PPP are parallel processes integrated at multiple stages of decision-making, i.e. a “concurrent model” (Glasson & Gosling 2001,91) or “integrated model I” (João 2005,10-11))
- SEA and PPP are integrated at multiple stages of decision-making but SEA informs the PPP stages and no flow exists between the SEA stages (“integrated model II” (João 2005,10-11))
- SEA and PPP are fully integrated, i.e. there is a “holistic integration” (Glasson & Gosling 2001,91), with no separate SEA process (Fischer 2007,37).

²⁵ Rationality basically implies that the decision-making process is goal-oriented, rational, purposive, and the information needed is complete and available (e.g., in Parsons 1995).

Basically, the last three integration modes are advocated in the SEA literature given that SEA needs to “possibly provide environmental input throughout the stages of policy formulation and decision-making” (Nitz & Brown 2001,329) and thus influence the contents and quality of PPPs. If SEA is to affect the quality of the decision-making process, rather than to assess its output (see trend 1 above), then, the utility of the first two modes is marginal, if not absent.

Despite the continuous development of integration models, difficulties still arise because of the “unresolved debate about how SEA links to the current actual policy and planning decision-making systems” (Partidario & Arts 2005,248). Amongst other attempts to explore the SEA’s potential to better integrate with and shape decisions, a complementary and decision-centred approach to SEA has been developed - Analytical SEA (ANSEA). Drawing on the decision-making science, it recognises uncertainties, information gaps, and cognitive limitations as typical features of environmental decision-making (Dalkmann *et al.* 2004,389). To cope with those, as it argues, the assessor needs to understand and characterise the decision-making context (which is presented as a functional description of the decision-making process); be able to identify ‘decision windows’ when critical choices for the environment are made, and to apply procedural criteria, i.e. prescriptions on how decisions should be taken, to those windows (Jiliberto 2004a,43-48). The approach has been an important development step in SEA as it has proposed a somewhat new conceptual and methodological framework for SEA. Moreover, Pischke & Cashmore (2006,659) argue that its significant innovation is “not, as [ANSEA’s] developers suggest, in redirecting the analysis on to the quality of decision..., values and priorities..., but in contributing to focusing attention on achieving the original substantive intent of” SEA.

Other studies that have contributed to theorising the current SEA vision have concentrated on comparing its principles with different concepts of decision-making. They have highlighted a possibility of using either separate or complex decision-making approaches. For example, in terms of applying separate decision-making approaches to SEA, it has been deduced that i) rationality provides for the fully formalised procedure for analysis in SEA, ii) bounded rationality allows for consideration of institutional and cultural constraints and more deliberation to substitute the imperfect knowledge, iii) “muddling through” supports adaptive procedure for SEA analysis, iv) incremental model gives space for compromise and more flexibility in analysis management for SEA; and v) “garbage can” with a high level of uncertainty does not establish any procedures for SEA (Nilsson & Jiliberto 2004,28-38). From the point of view of complex decision-making, several mismatches have been

identified between its logics and the premises of Impact Assessment that contribute to sustainability. Those, under the assumption that they cannot be solved, are described as three paradoxes (Nooteboom & Teisman 2003,302-304):

- a) The paradox of timing and listening: Impact Assessment will always be too early and too late and will provide policy makers with too much information (they do not want to know) or too little information (what they need to strengthen their position);
- b) The paradox of responsibility: nobody is in charge in complex processes and, therefore, all stakeholders should feel a kind of responsibility; and
- c) The paradox of transitions: the outcomes of sub-processes can be rational and desirable, yet still the interaction between these sub-processes can lead to undesirable transitions²⁶.

The paradoxes allow for focusing the problems of the multi-actor decision-making context, in which SEA functions. They point to the diffusion of the conventional notion of accountability and stress the role of networking and dialogue (see Nooteboom & Teisman 2003).

The rationalistic SEA assumptions have seemed to be ignorant with regard to external influences, causal relationships, and contextual sensitivity. Yet, the decision-oriented SEA practices demonstrate a variety of contexts in which SEA operates and presume different roles for SEA. The SEA literature criticises the normative and procedural assumptions concerning the aim of SEA and ‘best practice’ as being context free, in line with a similar criticism in planning theories (Hilding-Rydevik & Bjarnadottir 2007,666-668). The importance of the context is frequently articulated in the SEA literature (e.g., Bina 2003; Kørnøv & Thissen 2000; Nooteboom & Teisman 2003), and failure to recognise it is seen as one of the obstacles to effective SEA (e.g., Marsden 1998a). SEA practice tends to consider the context (e.g., Aschemann 2004; Palerm 2005), however conceptually the issue of context in SEA is claimed to be under-theorised (Bina 2003,116). Some innovative products of the recent interest in context highlighted a certain dichotomy implied by the interaction between SEA and context. It is expressed as a “vicious circle” proclaimed in SEA, which suggests that the process of negotiating and implementing SEA influences the context in which SEA itself is applied, meanwhile the context in turn influences SEA (Bina 2003,113-114). Another recent input has been a conceptual effort to “give substance” to the issue of context in SEA and explore the

²⁶ ‘Transitions’ here stand for interlinked high-level changes at social, institutional, technical and economic levels necessary for sustainable development.

contribution of “context awareness and sensitivity” in SEA to the integration of the environment in planning (see Hilding-Rydevik & Bjarnadottir 2007).

In relation to the context and integration issues, SEA assumes that it can streamline environmentally sound decisions along the system of related initiatives. This system is portrayed as *a hierarchy* of related strategies from higher to lower administrative tiers. In this structure ‘*tiering*’ represents “a mechanism for planning actions in a systematic and efficient manner” and “a key tool for implementing a phased approach to planning, especially in programs that are large, complex...” (Eccleston 1999,72). In the SEA literature ‘tiering’ is defined as “the linking of assessments for PPP and projects to achieve a logical hierarchy and avoid unnecessary duplication of assessment work” (DfT 2004,27). Different kinds of tiering are distinguished (e.g., Arts *et al.* 2005; DGTREN 2005; Fischer 2006; Partidario & Fischer 2004; Sadler 2005b; Therivel 2004):

- Vertical tiering i) between planning levels, i.e. policies, plans, programs and projects (and their EAs); ii) between administrative levels, i.e. supranational, national, regional and local;
- Horizontal tiering runs across the sectors but at the same administrative levels.
- Diagonal tiering links different administrative levels across the sectors.

Tiering, having clear theoretical assumptions about hierarchical structures, is often criticised for being blurred in reality (Hilden 2005,57). Some common criticisms are that:

- PPPs can develop at several planning and administrative levels and can influence actions not in a top-down, but in a reversed manner (Hilden 2005,58), e.g., a plan at the regional level may set the need for a national-level policy and vice versa (Partidario & Fischer 2004,234);
- SEA information cannot be endlessly cascaded from one assessment level to another as it may become obsolete or prove to be weak by subsequent EA (Arts *et al.* 2005,3); and
- an implicit assumption of tiering as a linear planning process does not appear to fit well with the dynamic nature of decision-making in practice (Arts *et al.* 2005,3).

However, despite its sometimes simplistic assumptions, tiering is regarded as a crucial concept in SEA planning and decision-making (Bina 2003,95). As the current practice shows, it is not just a conceptual idea (e.g., Fischer 2006; Fischer 2007). A tiered system of decision-making exists, and in most cases, “the tiering order is determined by the decision-making system in place” (Nooteboom 2000b,158). Tiering may add values to SEA, e.g., enable greater transparency and integration, support more effective streamlining of strategic

planning, elucidate connections with other PPPs to avoid duplication, etc. (Fischer 2007,17). Despite the criticism, successful tiering between different PPPs, project and assessment levels is perceived as an essential element of the ‘best-practice’ SEA (e.g., Esson *et al.* 2004; Fischer 2007; Fischer & Seaton 2002; Hilden 2005). To make the application of SEA more effective for different tiers in a decision hierarchy, it has been suggested that not only different types of SEA tools are needed for different strategic actions (Therivel & Brown 1999,445), but also distinct decision-making approaches should be used for: a) policies: negotiation decision-making approaches; b) plans: new institutional decision-making approaches; c) programs: rational decision-making approaches (Fischer 2003,165). The differentiation of the approaches might provide a basis for the selection of appropriate methodologies, techniques and strategies for conducting SEA, drawing also upon the aims and values of PPPs.

The ability of the classical rationalism to be *comprehensive* in terms of the scope and quality of information necessary for rational decision-making is another weakness of rationality assumptions (Arts & Morrison-Saunders 2004b,27-28). Whatever information is provided in project or strategic EA, there is always a lack of it and whatever is the quality of information, the capacity to predict the future is limited and gaps in knowledge and uncertainty remain (e.g., Arts 1998,65-66). The theory contends that decision-makers can face either conceptual or epistemic uncertainty²⁷: the former is due to incompleteness of meaning, or intention; the latter is due to incompleteness of knowledge (Rolf 2006,137). Echoing those premises of theories of decision-making, uncertainty in SEA is marked by a variety of practical denotations. Apart from the gaps in knowledge, those include uncertainty of prediction and outcomes (Fischer 2007,41; Willburn 2005,32) and prediction techniques (Therivel & Ross 2007), uncertainty about what constitutes environmental risk in practice (Pischke & Cashmore 2006,652), uncertainty associated with contingencies of the real world, e.g., due to the political nature of decision-making (e.g., Kørnøv & Thissen 2000; Nilsson & Dalkmann 2001), political instabilities (see Cherp 1999) or changes in complex ecosystems (Perdicoulis *et al.* 2007,3), etc. Many authors argue that all actors involved in the SEA process should be aware of and acknowledge uncertainties and unpredicted impacts that might occur in planning,

²⁷ Reduction of uncertainty can be twofold and serve to different goals: “By reducing epistemic uncertainty of beliefs, judgments, verdicts or decisions one improves on their justification....By reducing conceptual uncertainty, one elaborates on the concepts by means of which we think and decide....Reduction of one kind of uncertainty does not automatically reduce that of the other” (Rolf 2006,137).

particularly at higher tiers in order to avoid disappointment over the outcomes of SEA (Fischer 2007,28; also OECD 2006; Therivel 2004).

Another rationalistic assumption challenged in the SEA practice implies that rational decision-makers are the only players. The normative notion of a single decision-making group or entity (unicentric), such as a government (Kørnøv & Thissen 2000,194) could have been compatible with the recognised fact that there are multiple individual decisions in PPP and SEA. However, the realities of policy-making reveal the involvement of multiple actors that get engaged in “an open interactive process in which problems, solutions and preferences, along with problem and solution perceptions, develop” (Kørnøv & Thissen 2000,195). In other words, SEA involves collective policy- and decision-making where the individuals representing different interest groups need to interact to arrive at mutually suitable solutions. Given such a stand, Kørnøv & Thissen (2000,191) have viewed SEA in the light of “experience gained within the psychological, behavioural and policy sciences”. Their analytical effort has pointed to a functional dilemma in contemporary SEA in that it mixes up two missions: “its advocative [role] as an instrument to enhance the preservation of... environment, and the ambition to support balanced decision-making which requires a neutral position towards the stakes in the process” (Kørnøv & Thissen 2000,199). There is nothing wrong with this, as long as the actors in particular SEA processes declare their rationales, consent upon the ultimate goals and outcomes and commit to the adopted course of actions.

In summary, the scepticism about the abilities of SEA to operate in the real decisions world has triggered the re-thinking of SEA assumptions in terms of the decision-making process and context. This has somewhat enriched the theoretical underpinning of the trends, which emphasise SEA’s role in integrating with and influencing the formulation of PPP and in enabling the learning processes.

2.2.2 Messages from strategy formation

Is ‘strategic’ only a comfortable term to relate SEA to higher-order initiatives or does it imply strategic thinking in the aspiration to strategic changes? There has been a continuous debate by a relatively small group of scholars over what is strategic in SEA, how it *is* or *could be* strategic and how this relates to the nature of strategic actions²⁸ (e.g., Bina 2003; Noble 2000;

²⁸ To date, ‘strategic actions’ imply a great range of activities subject to SEA, e.g., treaties, budgets, or sectoral developments (e.g., Brown & Therivel 2000,185), which also reflects the meaning of ‘actions’ under the NEPA.

Therivel 2004). Higher levels of application, strategic influence from higher to lower levels, focus of SEA not only on PPPs, but also and crucially on strategic alternatives are some arguments for what makes SEA strategic (e.g., Dalal-Clayton & Sadler 2005; Noble 2000; Therivel & Brown 1999; Verheem & Tonk 2000). Another ‘strategic’ characteristic of SEA is believed to be its paramount ability to deliver strategic changes for sustainability. However, the recent perception has been that Impact Assessment, including SEA seems to be insufficient to attain the societal transition that may be necessary for sustainable development (Nooteboom & Teisman 2003,285). Questions arise as to how and under what kind of conditions SEA can cope with this challenge. In this regard, theories of strategy formation, that seek to explain how strategies emerge and changes occur, could benefit the SEA thinking.

Around fifty years²⁹ of observations of how strategy-making evolves in institutions have stressed the vital distinction between the processes of strategic planning and strategic thinking. Whereas the former is an analytical breakdown of goals into steps, their implementation, and estimation of the anticipated consequences of each step; the latter requires a synthesis, intuition, and creativity to formulate an integrated perspective or a vision of where to go (Mintzberg 1994). Various assumptions and approaches of both processes have been recapitulated in ten schools of strategy formation³⁰ (e.g., Mintzberg 1994; Mintzberg *et al.* 1998; Mintzberg *et al.* 2003,22-28). None of them would fully explain the way successful strategy making operates to serve as a normative or prescriptive model. However, a recent innovative work by Cherp *et al.*(2007), who have collated the principles of ten schools and those of SEA, suggests that the strategy formation schools communicate important messages for SEA in relation to its assumptions of *rational, formal, deliberate, fully informed, transparent and accountable decision-making*.

The nature of strategy making is usually conceived as either *formal (analytical) or informal (power-behavioural)*³¹. The former means that formulation of strategy is a disciplined process resulting in well defined efforts as per the established rules (Hax & Majluf 1996,15). The latter realises that multiple goals, negotiations, coalitions of actors, various external influences

²⁹ This refers to the contemporary vision of strategy theories. The historic roots of strategy and strategic management are believed to be dating back to 450 B.C., to the times of ancient Greeks (Kalpic *et al.* 200x,3).

³⁰ The schools and their slogans are as follows: Planning (formalise!), Positioning (analyse!), Design (fit!), Power (promote!), Entrepreneurial (envision!), Environmental (react), Cognitive (cope or create!), Cultural (coalesce), Learning (learn!), and Configuration (integrate, transform!) (Mintzberg 2003a,23-25).

³¹ Analytical-formal decision-making process relies on analytical tools and methodologies to help managers to reach better quality or strategic thinking, the power-behavioural approach emphasise multiple rationales, the politics of strategic decisions, negotiations, and the practice of ‘muddling through’ (Hax & Majluf 1996,16).

or pressure might affect the articulation of strategy so that it would not obey the pre-determined rules (Hax & Majluf 1996,15). The former process matches the current SEA thinking in that it is a structured and formal process with distinct standard stages to be integrated with PPP. Meanwhile, the latter drives to a possible reason why SEA might be ineffective in aiding strategic changes. Presumably, “SEA often fails to significantly influence PPPs because it is conceived as integrated with *formal* processes, whereas in reality strategy formulation is often an *informal* process” (Cherp *et al.* 2007,639). To acknowledge this dichotomy in SEA may be vital as, on the one hand, it stems from the practice of strategy formation, arguing that a strategy might rest on both formal and informal processes, and, on the other hand, it resonates the idea of appropriateness and applicability of various decision-making approaches to SEA (see Point 2.2.1).

The SEA process generally assumes that the decisions and actions will be implemented as planned. In reference to this, the theories of strategy formation draw a distinction between deliberate and emergent types of strategy implementation. The strategy is deliberate if its realisation matches the intended course of actions and emergent when it is identified from the patterns observed in past behaviour despite, or in the absence of, intention (Hax & Majluf 1996,17-18; Mintzberg *et al.* 1998,11-12). The strategies might be a combination of those located at some point between the two extremes. In relation to SEA, those considerations suggest that SEA should recognise *emergent* elements on a par with its conventional premise that strategic initiatives are primarily *deliberate* (Cherp *et al.* 2007,627). Recognising both stances is useful as long as deliberate elements are needed to provide a purposeful direction, whereas emergent elements imply “willingness to learn while implementing...alongside open, flexible and responsive [management]” (Hax & Majluf 1996,18).

Differentiation between formal and informal and emergent and deliberate SEA and PPP-making processes leads to the issue of separating the formulation from implementation stages. A strict separation of strategy formulation from implementation is one of the premises of strategic planning, as well as of a linear planning in SEA, that has brought about much scepticism. The separation implies that the environment in which formulation takes place is always understood and stable and that information can be aggregated and transmitted between the planning levels without loss/distortions (Mintzberg *et al.* 1998,41). In one or another way, these assumptions prove to be false. The strategies might not follow the pre-formulated order but *form or emerge* formally or informally from the actual actions. Similarly Cherp *et al.* (2007,632) argue that “in emergent strategies decision-making cannot be fully separated

from implementation..., because any action may, in principle, lead to change of strategies formulated in earlier decisions”. Thus, in reality, the border between formulation and implementation can appear to be blurred and what is actually and emergently accomplished constitutes a strategy formation process.

Strategy formation distinguishes between *descriptive and prescriptive* courses of formulation. Descriptive approaches attempt to explain how strategies are actually formed, whilst prescriptive approaches strive to propose an ‘ideal’ or the best possible action course (Mintzberg 2003a,22; Mintzberg *et al.* 1998,5-6). The stage of formalisation of SEA (Table 2-2) heavily relied on the stipulation of ‘ideal’ formal and rational models supported by ‘benchmarks’ and ‘good’ principles of planning and decision-making, e.g., EIA/(S)EA manuals, guidelines, textbooks. The extension stage of SEA (Table 2-2) has witnessed a growing body of descriptive SEA literature, such as case studies and comparative reviews. The current stage of the SEA evolution recognises the importance of understanding of how the actual process of SEA and PPP-making occurs and calls for a more systematic description of the accumulated practice³². The ANSEA approach also reflects this shift in interest to actual decision-making in that it builds the SEA process on “a description of the sequence of...sub-decisions in the decision-making process and the functional relations between them” (Jiliberto 2004a,45). Nonetheless, “the focus of the SEA research community is still too much on the ideal rather than on actual strategy formation processes” (Cherp *et al.* 2007,629).

The literature on strategy formation views the nature of a strategy as *transformational or static*, where the former seeks to manage changes both inside and outside the organisational network, while the latter is more reactive and insensible to innovations and impacts (e.g., Pearce & Robinson 1991; Rowe 1989; Sharplin 1985). The SEA thinking can draw two parallels in this regard: one relates to the underlying intention of ex-ante SEA process *to make a change* and another relates to the issue of *how to manage changes during the implementation of PPPs*. First, SEA has recently realised a similar distinction between a ‘transformative’³³ and ‘procedural’ nature and underlying intention of the SEA process. At the one end, there arguably are ‘procedural’ strategies that depict SEA as a systematically

³² E.g., in 2008 the SEA community was invited to participate in a special issue of the IAIA’s journal “Impact Assessment and Project Appraisal” on comparative SEA studies covering different countries and jurisdictions.

³³ ‘Transformative’ is a course of, or an ability to make a transformation or transition in a sense how transition is understood in the three paradoxes above; ‘transformational’ is a narrower concept used in strategic management in relation to the exercised course of actions.

‘rational’ process seeking to influence the formulation of a specific PPP; at another end, ‘transformative’ strategies view SEA as an intentionally ‘political’ process aimed to contribute to longer-term changes in the way decisions are made, and to induce learning about environmental values in institutions and society (Wallington *et al.* 2007,573-6). In this parallel emphasis is on how changes can be projected and how decisions about them are made, meanwhile by making the above distinction theories of strategy formation highlight the issue of strategic management of change. This second point is somewhat acknowledged in EA, e.g., by Holling (1978) in his concept of Adaptive EA and Management (AEAM). Recognising incapability and limited ability of ex-ante EA to cope with ‘emergent’ and uncertain, Holling (1978) argues that a greater attention should be given to developing management systems able to adjust to the changing elements of reality. AEAM has been extensively applied to project EIA to merge an ex-ante assessment with management responses. It has also successfully migrated to EIA follow-up management. In the SEA literature, the concept has hardly been discussed. Overall, strategic management of changes³⁴, which is a key process to make PPPs going, is insignificantly addressed in the SEA discourse.

SEA aims to involve a wide range of stakeholders (see SEA objectives) whose participation might range from providing input (mainly by the public) to making strategic decisions (strategy owners or authorities). It is assumed that proponents, experts and consultants, authorities and the public (organisations and individuals) can be effectively engaged in SEA depending on the quality of the SEA process. SEA also assumes that the actual decision-making power lies with decision-makers who are the key actors in the process and who utilise the findings. Theories of strategy formation suggest that the key decision-making power can either belong to easily identified actors or be unequally distributed among people/groups or be dispersed among emergent and existent actors (e.g., Mintzberg 1994; Mintzberg 2003a; Senge 1994). In this regard, Cherp *et al.* (2007,634) note that in the mainstream thinking, where SEA is largely formal and deliberate, the identification of strategic actors is rather straightforward, whereas the recognition of emergent processes makes this more difficult. Kørnøv & Thissen (2000,191-4) also stress the issues of distribution of decision-making power over actors in SEA as being complicated by a variability of preferences and norms. Paying more attention to “actor configuration and distribution of interests” (Kørnøv &

³⁴ This alongside other issues, central to strategic management both in the public and industrial sectors, such as strategy control and auditing, strategic performance and strategy evaluation principles (e.g., Pearce & Robinson 1991) is particularly relevant to under-theorised and practically less studied follow-up in SEA (see Chapter 4).

Thissen 2000,191) and to “actors, and networks, organisational cultures...” (Brown & Therivel 2000,188) has been suggested, imposing new practical challenges on SEA.

2.2.3 Messages from theories of learning and information/knowledge management

SEA intends to create new knowledge³⁵ and stimulate learning among its stakeholders (see the SEA objectives). But what kind of knowledge can it create and how relevant should it be to establish pre-conditions for learning among stakeholders especially about how to move to sustainability? These questions prompt inquiry into theories of learning and knowledge management. The SEA discourse has sporadically borrowed one or another aspect from theories of (organisational) learning and knowledge management. The notions of learning, feedback, production and accumulation of knowledge have been acknowledged as essential to enable SEA to successfully promote environmental considerations (e.g., Fischer 2007; Rauschmayer & Risse 2005). Nonetheless, no systematic parallels have been drawn between the assumptions about learning in SEA and the theories. This theoretical area is most poorly addressed in the modern SEA discourse. That could be partly explained by the fact that knowledge and learning have become central facets in decision- and policy-making as well as in strategy formation and have entered the SEA discourse from this end. Meanwhile, the genuine theories of learning can convey useful lessons drawing from distinctions between types of learning, the reasons for particular types of learning and the ways how knowledge and information is produced, presented, used or transferred.

Learning can be either a process or a product: the latter refers to an accumulation of knowledge or skills which are gained through the “process” (Argyris & Schön 1996,3). Learning as a product evokes thinking about what and how could be understood, perceived, and mentally acquired, whilst the learning process absorbs from the theories making changes in either behaviour or in mental state. Those definitions are compatible with the current SEA thinking. On the one hand, SEA treats learning more as a process that occurs throughout policy and planning processes seeking to “induce learning about environmental values in institutions, organisations and civil society” (Wallington *et al.* 2007,573). On the other hand,

³⁵ Oxford English Dictionary defines ‘knowledge’ as *inter alia* (i) expertise, and skills acquired by a person through experience or education; the theoretical or practical understanding of a subject, (ii) what is known in a particular field or in total; facts and information or (iii) awareness or familiarity gained by experience of a fact or situation (Simpson & Weiner 1989,517-518).

SEA has to generate a ‘product’, namely a report that includes not only the description of SEA research and findings, but also the acknowledgement of how the input from different stakeholders has influenced the SEA process and its ‘product’. There is a certain divergence in how the SEA community views a ‘product’. Outcomes of SEA (also its benefits) are often stated as ‘products’, e.g., organisational learning itself is a product resulting from the SEA process. A clearer differentiation would be instrumental for better vision of ‘learning for SEA’, ‘learning during SEA’ and ‘learning as an output and outcome of SEA’.

Different types of learning can be split up based on whether they hold a technical or social bearing. The types are: i) “*discontinuous learning*” via breakthroughs; ii) “*daily learning*” - a continuous and slow accumulation of knowledge (e.g., vague ideas which are polished with time); and iii) “*codification of old knowledge*” coming from books and scientific papers (Pitcher 2003,50). From the technical point of view, organisational learning is about effective processing, interpretation of, and response to information both inside and outside of the organisation (Easterby-Smith *et al.* 1999,3). This information can take diverse forms and be quantitative or qualitative, but its common feature is that it is mainly explicit and publicly available. The social view on organisational learning emphasises the ways people interpret and make sense of their experiences at work, drawing on both explicit sources such as financial information, or tacit sources, such as the “feel” or “intuition” possessed by the skilled (Easterby-Smith *et al.* 1999,3).

The modern SEA arguably necessitates two types of learning: “*cognitive learning*, where knowledge is the dominant variable, and *social learning*, where communication between different actors and their values may lead to the reformulation of policy issues” (Fischer 2007,27). Cognitive learning somewhat resonates the technical stream in that it assumes that information is to be gathered systematically, formally and be explicit and transparent (e.g., Nooteboom & Teisman 2003,301) to optimise decisions. Its heavy dependence on the quality and level of the knowledge possessed might make it favourable for advocates of technocratic SEA. Social learning in SEA pays more attention to interactive activities between the actors (but hardly mentions *negotiation or mediation skills* in terms of the *quality* of their conduit). An interest in the mechanisms of when and how both technical (cognitive) and social learning occur has only recently emerged in the SEA discourse.

Theories of learning, similarly to knowledge and learning polemics in policy-making and strategy formation, point out to the issues of irrelevant, implicit and surplus data/information.

In regard to SEA, it can be argued that in a politicised process such as SEA “knowledge is only used if it helps actors to support given interests” (Nooteboom 2007,649) and “refinement of analysis to include larger numbers of alternatives, more detailed impacts, and more scientific rigor will not necessarily lead to more impact on the decision situation” (Kørnøv & Thissen 2000,198). Drawing on the organisation learning concepts in strategy formation, Cherp *et al.* (2007,640) propose to “focus SEA on producing strategically-relevant knowledge” and thereby mitigate the above limitations.

Other accounts worth mentioning refer to the depth of change that occurs through learning. They are *single-loop learning - instrumental learning*³⁶ - that changes the strategies of action or underlying assumptions leaving the values unchanged and *double-loop learning* that results in a change in the values of the theory-in-use as well as in its strategies and assumptions (Argyris & Schön 1996,20-24). To adapt to changes it is essential to focus on single-loop learning; while to create knowledge the organisations need double-loop or generative learning as it revolves around incessant experimentation and feedback in an ongoing scrutiny of the means and ends when defining and solving problems (Senge 1994,14). Applying this to SEA, Wallington *et al.*(2007,575) conceive that a procedural³⁷ nature of SEA resembles single-loop learning, where goals, values, and frameworks are accepted as given, while a double-loop learning strategy for SEA recovers its transformative intent: to change the way decisions affecting the environment are made and to question the type of development proposed. In the SEA continuum, single- and double-loop learning are deemed to be complementary and mutually reinforcing (Wallington *et al.* 2007,575). To see the actual results of how single-loop and especially double-loop learning work in SEA might require long time. But these elements require a further exploration as they may inform the underlying intent of SEA and supplement messages from strategy formation and decision-making, e.g., about descriptive or transformational nature of SEA.

Turning back to learning as a product, the theories of learning and knowledge management argue that for effective learning it should be possible to easily mobilise, integrate and access information needed. Many methods exist for capturing knowledge and experience, such as

³⁶ Instrumental learning in Sabatier’s (1993,27) terms occurs when “members of various coalitions seek to better understand the world in order to further their policy objectives” resisting the information suggesting that their beliefs may be invalid.

³⁷ In the authors’ view the strategies that underlie SEA could be either transformative that call for fundamental changes in society’s perceptions about the environment via EA or procedural, aiming to influence decision by ex-ante analysis of predictable impacts (Wallington *et al.* 2007,573-4) (see also discourse on strategy formation).

publications, activity reports, lessons learned, interviews, and presentations. Capturing also includes storage in repositories, databases, or libraries to insure that the knowledge will be available when and as needed. The idea of storing and making information and knowledge available to many stakeholders is widely proclaimed in the SEA literature. It is supported by certain legal requirements³⁸ and occasionally by guidance from the national³⁹ to individual PPP level. Knowledge generated in the SEA process is supposed to be supplied to key actors and the public in the form of a report. Background SEA research papers and interim reports are usually stored within the expert or owner organisations. In theories of organisational learning and strategy formation the ways how information is presented should be adjusted to the mandate and power levels of managers, decision-makers and stakeholders⁴⁰. Similarly in SEA, the issue of presenting information and communicating *relevant knowledge to relevant strategic actors* is seen as critical for learning for strategic change (Cherp *et al.* 2007,639). To date, SEA at least from the technical viewpoint recognises that information should have relevant presentation forms. For example, information presented in the background reports and final SEA report might significantly differ in terms of level of detail, contents, context, issue coverage, etc. and at different stages of production might have different confidentiality statuses. Also, a non-technical report interprets the SEA findings in easier terms to facilitate their communication to the wider public. The problems with supplying and utilising relevant information arise during SEA as described in paradoxes (Point 2.2.1). After the approval decision, an issue might become data accessibility, as the proponents of PPPs and SEA might not be their ‘authors’. Also, decisions about relevance and timeliness of information being provided may be complicated by the mentioned difficulties in identifying key strategic actors and dispersed decision-making power. Thus, how relevant information should be presented, through storytelling or otherwise, to make a sense for learning for strategic change is a challenge only partially addressed in SEA (Cherp *et al.* 2007,640).

³⁸ E.g., the SEA Directive sets general provisions for transfer and exchange of environmental information which shall be reliable, comprehensive and relevant and use of existing data sources (EC 2001 preamble (15), Art. 10).

³⁹ E.g., the UK Environment Agency has generated a list of existing national datasets relevant to the topics specified in the SEA Directive, Annex I (e.g., biodiversity, air/water quality) (Persson & Nilsson 2007,489).

⁴⁰ Top managers receive ‘strategic’ information which is less technical and more general. This information is mostly based on more detailed data prepared for mid-range managers by operation managers, who possess the most detailed data. The public reports present information in simpler language usually on selected topics (e.g., Mintzberg 2003b; Senge 1994).

2.3 Effectiveness of SEA: frameworks, approaches, context criteria

A need to reflect on the effectiveness of SEA has always been on the practical and theoretical research agenda (e.g., Sadler 1996; Sadler & Verheem 1996b). Studies on this subject have revolved around the fundamental objectives of SEA (see above). However, the effectiveness of SEA in each particular case has also been a repercussion of the degree of achievement of its case-specific aims. Overall, there are many characteristics of SEA effectiveness.

The evaluation of *the effectiveness of the SEA processes and activities* is multi-dimensional⁴¹ and can be divided into three broad groups: 1) efficacy⁴² of SEA based on successful integration of SEA with planning/decision-making and influence of SEA on subsequent planning levels, i.e. tiering and 2) efficacy of SEA according to the quality of SEA reports or PPP documentation, and 3) efficacy of SEA in terms of impacts on goals, views and values and level of involvement of decision-makers and other stakeholders. The SEA literature has developed sets of normative principles, ‘success’ or ‘effectiveness’ criteria that basically, but not all-inclusively, require that the SEA process be *objective-led, efficient, accountable, relevant, transparent, iterative, adaptive, flexible, integrated and sustainability-led* (e.g., Dusik *et al.* 2002; Fischer & Gazzola 2006; IAIA 2002; Seht 1999). Those serve as benchmarks against which the effectiveness evaluation of the SEA process is conducted (e.g., case studies in Fischer 2002; Noble 2003).

The recognition of the context-dependency of SEA has triggered the evaluation of *contextual factors for successful SEA*. Proposed frameworks usually include elements that jointly enable SEA to be effective. For example, one of the comprehensive frameworks suggests the following theory- and practice-based context factors for effective SEA: 1) clear goals for assessment; 2) formal requirements and clear provisions to conduct and effectively consider SEA; 3) appropriate funding, time, and support; 4) achievement of a willingness to co-operate (consideration of traditional decision-making approaches); 5) setting clear boundaries-

⁴¹ Evaluation is/can be conducted against e.g., i) the objectives, principles and aims it is being designed for, ii) the SEA’s ability to successfully integrate environmental issues in policy-making and promote public participation in governmental PPPs as per the Aarhus Convention (e.g., EfE 1998), iii) the quality of SEA reports as a pre-requisite of successful SEA (e.g., Bond *et al.* 2005; Bonde & Cherp 2000; Seht 1999; Simpson 2001), iv) the extent to which the SEA process makes a difference to decision-making (e.g., Sadler 1998b), v) the ways how SEA influences planning and policy-making and factors that shape SEA in this context (e.g., Aschemann 2004; Furman & Hilden 2001; Hilden *et al.* 2004; Sheate *et al.* 2005; Short *et al.* 2004), and vi) the capacities of SEA as a conflict-resolution or negotiation means and to make compromises in decision-making (e.g., Niestroy 2000).

⁴² “Efficacy” and “effectiveness” are equivalent in the research.

addressing the right issues at the right time and defining roles of assessors; 6) acknowledging and dealing with uncertainties (Fischer 2007,26; also Fischer 2005).

In many cases, the evaluation approaches combine the process, procedure and context elements. An example of this is a framework conceptually based on a ‘triangulation test’, which relates policy (provisions), practice and performance⁴³ of SEA (Sadler 2004,251). Effectiveness evaluation can be undertaken along one or all of three dimensions (Sadler 2004,251): i) *procedural* - does the SEA/EIA process comply with established provisions and principles?, ii) *substantive* - does the SEA/EIA process meet its purposes and objectives?, and iii) *transactive* - does the SEA/EIA process deliver the outcomes efficiently (low costs, etc.) and equitably (without bias or prejudice to the participants)? Such ‘higher-level’ frameworks necessitate the elaboration of sets of principles for deeper analytical research.

A diversity of approaches for judgement of SEA effectiveness is commensurate with its intentions. Overall, the SEA effectiveness studies are mostly concerned with evaluating ex-ante SEA and its immediate effects on decisions in line with the assumptions of SEA that decisions precede actions, which are implemented as planned. How effective SEA is from the viewpoint of its implementation, i.e. follow-up, has hardly been addressed. This is despite the fact that when evaluating SEA effectiveness, existence of monitoring and management plans is usually a criterion of effective SEA (e.g., Bonde & Cherp 2000; IAIA 2002; Simpson 2001).

2.4 Interim Summary

Two grand rationales have given impetus to the development of SEA: first, a need to strengthen project EIA and second, a promise of SEA to better integrate the environment in strategic decision-making and foster strategic changes towards sustainability. Multiple expectations of SEA users have caused an explosion of different aims and methods of SEA resulting both in confusion over its use and purpose and in presumably effective context-sensitive application. Debates on these subjects have triggered tensions in SEA and highlighted underlying trends that embed SEA in the context of related theories. The theories of planning, decision- and policy-making, strategy formation and learning and knowledge management question many assumptions of SEA and explain certain issues seeking to enrich its theory and practice in the course of its intensive spread over the 1990s-2000s. A need to

⁴³ Performance connotes the successful accomplishment of the task or activity, while effectiveness is also seen as a broad yardstick of the manner of performance (Sadler 2004,251).

evaluate the effectiveness of SEA experience has instigated the development of evaluation principles, criteria, and frames leading to numerous effectiveness studies. These studies demonstrate a wide scope of SEA effectiveness research; however, follow-up to SEA has virtually fallen out of their scope. Meanwhile it might represent a new way to better reveal the potential of SEA to move the society towards sustainability (see also Chapter 1).

2.5 The state-of-the-art SEA follow-up

The above review manifests that despite the proliferation of SEA, an important question remains as to how SEA actually reinforces project EIA and contributes to sustainable development (e.g., Bina 2003; Dalal-Clayton & Sadler 2005). A traditional focus of SEA on shaping PPP-making and the SEA effectiveness studies devoted to its success in this regard, do not seem to clarify the ambiguity. New ways to address this issue are sought by the SEA community calling for questioning “the implicit and explicit assumptions...and...*raison d’être*” of SEA (Wallington *et al.* 2007,570). This research shares this position and argues that if SEA is to actually deliver strategic changes and track the progress towards sustainability goals, it should widen its thinking to include environmental and sustainability integration in PPP implementation, i.e. SEA follow-up.

2.5.1 Neglect of and rationales for SEA follow-up

‘Follow-up’ has been in use in relation to EIA⁴⁴ since the 1980s (e.g., see in Morrison-Saunders & Arts 2004,3). In the 1990s, the growing SEA literature started mentioning the need for post-decisional SEA activities (e.g., Therivel & Partidario 1996; Therivel *et al.* 1992) and consequently the term ‘follow-up’ was transferred to SEA (see [Table 2-2](#)). Despite the acknowledged importance of post-decisional SEA, SEA follow-up has received little attention in the SEA theory and practice. Mostly seen as an insignificant part of SEA and an extension of quite successful EIA follow-up, it has been the least discussed element of SEA. Although follow-up elements, especially monitoring, are among the quality criteria of SEA, most practice-based SEA effectiveness studies have left SEA follow-up and PPP implementation out of the inquiry scope. Thus, notwithstanding “being central to long-term overall effectiveness” of SEA, monitoring and ex-post evaluation activities are among its least developed stages (Lee 2006,64). This constitutes a serious gap in knowledge in SEA.

⁴⁴ EIA follow-up is a generic ‘umbrella’ term for various EIA activities, e.g., monitoring, auditing, *ex-post* evaluation, post-decision analysis, and post-decision management (Arts *et al.* 2001,175).

Basically, four reasons could have caused such an overlook of SEA follow-up:

1. the SEA's rational decision-making assumptions suggesting that by influencing a particular PPP all subsequent decisions and actions will be influenced as well, as the 'environmentally important' information will be cascaded downwards to projects (tiering);

2. the already emphasised focus of SEA on ex-ante assessment, which implies that the objective of SEA is to shape a particular PPP;

3. the specifics of formulation and implementation of PPPs that might not leave space for a formal SEA follow-up. In particular:

"Many strategic initiatives do not presume much implementation activities to speak of. They may be more about articulating and communicating commitments or principles than about action. If there are little or no implementation activities and if the institutional frameworks created for formulation of strategic initiatives cease to exist after the initiative has been endorsed, SEA follow-up may lose its 'organisational anchoring' or 'ownership'. Even when this is not the case, the links between formulation and implementation of strategic initiatives are much more complex than...the links between design and implementation of projects" (Cherp et al. forthcoming);

4. the absence of a relatively clear vision of the usefulness of SEA follow-up to its users who thus do not have motivation to undertake it.

In this light, it is crucial to understand the rationales for SEA follow-up. Those stem not only from a classical (technical) need for feedback, but also from the critical moment in the SEA evolution, associated with its promise to promote sustainability. The classical rationales of SEA follow-up are similar to those of EIA follow-up⁴⁵, however they assume larger importance and impose greater challenges at strategic levels (Cherp et al. forthcoming):

- Uncertainties in determining environmental implications of a strategic initiative;
- New and unpredicted circumstances are more likely to emerge in relation to a strategy;
- Deviations from initial designs are more usual for strategies than for projects⁴⁶. This implies that SEA should shape not only formulation, but also implementation of strategies.

⁴⁵ Rationales of EIA follow-up arise from the considerations of uncertainty and risk associated with any decision-making process based on ex-ante evaluation (e.g., see Arts et al. 2001; Harrop & Nixon 1999; ODPM 2005b) and the need to bridge a gap between design and implementation to provide for feedback (e.g., see Arts et al. 2001; Arts & Morrison-Saunders 2004a).

⁴⁶ Partidario & Arts (2005,249) call this a 'strategic effect' of follow-up, meaning that while in EIA the absence of implementation would not trigger any follow-up, in SEA this may itself be a strategic reason for follow-up (Point 2.5.5).

Other rationales for SEA follow-up come from a growing belief that new approaches are needed to reinforce SEA and increase its long-term effectiveness and credibility for achieving sustainability:

- Without follow-up to decision-making SEA risks becoming a pro-forma exercise with limited abilities to enhance its intended benefits and contribute to overall sustainability (Partidario & Fischer 2004,231; also Persson & Nilsson 2007)
- At the current stage of SEA evolution, a belief is emerging that SEA will guide the transition to a more sustainable society by tracking the progression of the *transition and ensuring it is following the right course*.

Hence, a follow-up mechanism in SEA is needed to increase its overall effectiveness and safeguard environmentally sound delivery of PPPs towards sustainability.

2.5.2 Isomorphism from EIA follow-up

SEA follow-up has borrowed a lot from EIA follow-up. The late 1990s-early 2000s saw an outbreak of interest in EIA follow-up that has resulted in many methodological developments, success and failure stories, lessons and evaluation reports from all over the world (Morrison-Saunders & Arts 2005,171-2). Definition, purposes, objectives, and stages of SEA follow-up mostly follow those of the conventional EIA follow-up. Furthermore, some elements of EIA follow-up that proved to be successful, e.g., the management component, have been recognised as potentially important elements to SEA follow-up as well (e.g., Cherp *et al.* forthcoming). This could be explained by the lack of experience in follow-up to SEA as well as by the common roots of EIA and SEA. At the same time, the growing experience with SEA limits the isomorphism and helps realise differences between SEA follow-up and EIA follow-up. Those in a way are the same as between SEA and EIA more generally, i.e. higher strategic levels, larger uncertainty, longer and wider scope of SEA follow-up, and different analytical methods and ways of implementation (e.g., Arts 1998; Arts *et al.* 2001; Cherp *et al.* forthcoming). Yet, SEA follow-up is far behind EIA follow-up in terms of methodological and theoretical foundations, empirical research and practical implementation.

2.5.3 Objectives and types of SEA follow-up

Similarly to SEA, objectives and roles of SEA follow-up are multifold and bound up with its rationales and expected outcomes. They vary to presumably encompass both bio-physical and “directly observable environmental changes” and more importantly such consequences of

strategies as “non-environmental changes, related to institutional frameworks, legal contexts, technical capacities or modes of governance” (Partidario & Arts 2005,251). The purposes and four basic components of SEA follow-up are obvious from its definition updated⁴⁷ by Cherp *et al.* (forthcoming): “*Monitoring and evaluation of the implementation of a strategic initiative and relevant environmental factors for management of, and communication about, the environmental performance of that strategic initiative*”. More specifically, Partidario & Arts (2005,255) contend that the objectives of SEA follow-up should relate to:

- Controlling plan implementation and/or checking the changes in the environmental and socio-economic situation and, if viewed necessary, formulating adaptive management actions;
- Learning on substance and/or process of strategic decisions and thinking, and enhancing the process of learning within organisations;
- Providing information for assessing the relevance and potential impacts of certain options on which decision-making is pending; and
- Communication with stakeholders and the general public on plan implementation and sensitive issues.

Closely related to these objectives are four goals and correspondingly ‘types’ suggested for SEA follow-up⁴⁸ by Partidario & Fischer (2004,233):

1. *Conformance* - check compliance against objectives, approval conditions, regulatory requirements and applicable standards or criteria;
2. *Performance* - verify relationships between PPP intentions or proposed activities and environmental and sustainability parameters/indicators (benchmarking);
3. *Uncertainty* - observe and manage uncertain, unpredicted and unexpected effects and actual changes; and
4. *Dissemination* - spread past experience of SEA follow-up programs to improve future practice of SEA and decision-making.

Presumably, SEA follow-up can make sense if it is contextually tuned up to a specific type of PPPs. Different types of the latter require different SEA follow-up approaches in terms of depth and scope. For example, conformance, performance, uncertainty, and dissemination

⁴⁷ This definition is adjusted to the specifics of strategic initiatives and higher level decision-making, while it still follows the structure of the initial EIA/SEA follow-up definition supplied in Chapter 1.

⁴⁸ Those follow-up types have presumably transformed into a “multi-track” approach that is discussed further.

SEA follow-up may have different tasks when applied to plans, programs, or policies due to planning level distinctions, and diversity and ambiguity of causal links between strategic decision-making and its consequences (Partidario & Fischer 2004,235). To elaborate, uncertainly follow-up for a policy can be “action plans that need to anticipate long-term institutional and political changes and uncertain and unexpected effects”, whereas that for a program can be “impact and implementation management plans” (Partidario & Fischer 2004,236). In line with this is the presumption that SEA follow-up moving from program to policy may become less site-specific, played out on a longer timescale; broader in terms of environmental, economic and social aspects covered; and have larger uncertainty margins (Persson & Nilsson 2007,479). Thus, SEA follow-up for programs may be closer to EIA follow-up than to SEA follow-up of a policy, that however may vary in reality where policies may have clearer intentions than area-wide plans (Persson & Nilsson 2007,479).

2.5.4 Components of SEA follow-up

A general consent has been that the structural composition of SEA follow-up is to be similar to that of EIA follow-up⁴⁹ (e.g., Cherp *et al.* 2006; Morrison-Saunders & Arts 2004; Partidario & Fischer 2004; Persson & Nilsson 2007). Thus, it encapsulates four main activities, namely monitoring, evaluation, management, and communication that can be preceded by preliminary screening and scoping procedures.

2.5.4.1 Preliminary SEA follow-up stages

The best practice EIA follow-up notes that since “EIA follow-up will...have to be tailored to specific project circumstances...screening and scoping is essential” (Arts & Morrison-Saunders 2004a,287) and should be “early and explicit” (Arts *et al.* 2001,183). Likewise, “screening for the need for and scoping of the content of follow-up program” in SEA is important and “should start early, preferably in the pre-decision stage of preparing the strategic initiative and SEA” (Partidario & Arts 2005,251). Provisions to prepare monitoring measures- screening - during the PPP and SEA elaboration are often set by regulations and guidance. For example, pursuant to the SEA Directive (EC 2001 Art.5 & Annex I) “a description of the measures envisioned concerning monitoring” should be part of an environmental report. However, only basic instructions as to how to conduct screening and scoping when preparing

⁴⁹ As Partidario & Fischer (2004,232) put it, despite the differences between SEA and EIA there are no indications that SEA follow-up should include fundamentally different elements from EIA follow-up.

SEA follow-up are found in practical guidance or professional SEA literature⁵⁰ (Barth & Fuder 2002). Several issues are influential for SEA follow-up screening and scoping, namely i) uncertainty (about impacts, measures); ii) sensitivity (of the area, society, politics); and iii) risk (of implementation failures) (Partidario & Arts 2005,251).

Thus, the preliminary stages are to help identify follow-up requirements, define the objectives and clarify boundaries for follow-up, identify issues to monitor and draft the methods and techniques to be used for each SEA follow-up activity.

2.5.4.2 Monitoring

Monitoring (and auditing)⁵¹ is broadly defined as “a program of repetitive observation, measurement and recording of environmental variables and operational parameters over a period of time for a defined purpose” (Arts & Nooteboom 1999,232). Likewise, the guidance for implementing monitoring requirements of the SEA Directive views monitoring “as an activity following the development of parameters of concern in magnitude, time and space” (Barth & Fuder 2002,1). Those definitions provide for a variety of interpretations in terms of ‘variables’ and ‘parameters’. The ‘good-practice’ suggests that effective SEA should provide “information on the actual impacts of implementing a strategic decision” (IAIA 2002). Similarly, the SEA Directive states that:

“(1) Member States shall monitor the significant environmental effects of the implementation of plans and programmes in order, inter alia, to identify at an early stage unforeseen adverse effects, and to be able to undertake appropriate remedial action” (EC 2001, Art.10).

The focus on effects and impacts in SEA follow-up has been found problematic both practically and theoretically. As Cherp *et al.* (forthcoming) argue the effects of PPPs are practically difficult to both trace and attribute as, first, effects may be rather complex and indirect due to complex causality chains, and second, attribution of changes observed in the environment to a specific initiative is problematic, as they may also result from other actions. Conceptually, a shift of attention in SEA from impacts to various features of strategies and SEA analysis (see Trend 1) suggests that monitoring should also follow this trend. Since

⁵⁰ For EIA follow-up, some general outline and criteria for these stages as well as conditions for their developments (e.g., Arts 1998; Morrison-Saunders *et al.* 2001; Morrison-Saunders *et al.* 2003).

⁵¹ Monitoring and auditing have been used in a mutually substitutive way causing certain confusion, however they are not synonyms: environmental impacts auditing represents periodical checks for compliance with a set of criteria or standards (predictions or expectations), and reporting the results; it may be carried out to facilitate management control and to assess compliance, e.g., the ISO 14000 standards series (Storey & Noble 2002).

strategies are characterised by uncertainty and dynamism, SEA follow-up should address them to the same, if not larger, degree as environmental impacts (Cherp *et al.* forthcoming).

The monitoring function in SEA follow-up is evolving not only in terms of its relation to a monitoring ‘object’, but also in regard to the potential roles, it may have. The initially simple, yet vital role of monitoring has rather ambitiously evolved into providing: “i) information on the actual significant environmental effects of the implementation of plans and programs; ii) subsequent improvement of planning processes; iii) improvement of future planning and assessment processes; and iv) long-term ensuring of the objectives of SEA” (Hanusch & Glasson 2008,603). Monitoring in such kind of a broader understanding in a way overlaps with the SEA follow-up objectives and becomes if not a predominant then at least a rather self-sufficient element of SEA follow-up independent from its other activities.

Whether the interpretation is narrower or broader, the substantive aim of monitoring presumes the need for a variety of monitoring approaches and types⁵². In this regard, Cherp *et al.* (forthcoming) identify three broad types of SEA follow-up monitoring (Figure 2:2):

- A. monitoring of actual environmental, socio-economic and institutional changes relevant to:
 - 1. the broader context of formulation and implementation of strategies (e.g., envisioned scenarios, underlying assumptions, etc.)
 - 2. progress towards strategic goals (‘goal-achievement’); and/or
 - 3. actual impacts of strategic initiatives;
- B. monitoring of actual implementation activities within the strategic initiative itself;
- C. monitoring of other activities related to the implementation of the strategic initiative.

These relate to the “multi-track” approach to SEA follow-up developed by Partidario & Arts (2005), that seeks to accommodate both environmental and non-environmental ‘objects’ of SEA follow-up and to connect them with the objectives of SEA follow-up (Box 2-2).

⁵² Different types of monitoring exist (e.g., see Arts 1998; Arts *et al.* 2001; Horokou 2004; Morrison-Saunders & Arts 2004; Storey & Noble 2002): i) “baseline monitoring”, which pertains to pre-project period, is argued to be updated ex-post, after a decision is taken, ii) “effects/impacts monitoring” - measurement of environmental variables during the implementation of an initiative to detect changes resulting from it; iii) “compliance monitoring” – a periodic sampling and/or continuous measurement of environmental parameters to ensure that regulatory requirements are observed and standards are met; iv) “area-wide” or “area-oriented” monitoring to measure the general state of the environment in an area including cumulative/synergistic effects, v) other forms of monitoring such as surveillance, inspection, cumulative effects monitoring.

Box 2-2. A multi-track approach to SEA follow-up (evaluation streams)

Track 1. Monitoring and evaluating actual changes in the state of the environment, socio-economical situation, institutional structures, legislative and regulatory framework, etc. to detect and assess factors with implications for the strategic initiative in question (similar to uncertainty follow-up).

Track 2. Evaluating achievement of stated objectives of the strategic initiative (so-called ‘goals achievement evaluation’). This approach can be seen as a form of checking conformance between stated objectives and the observable outcomes (this relates to conformance follow-up).

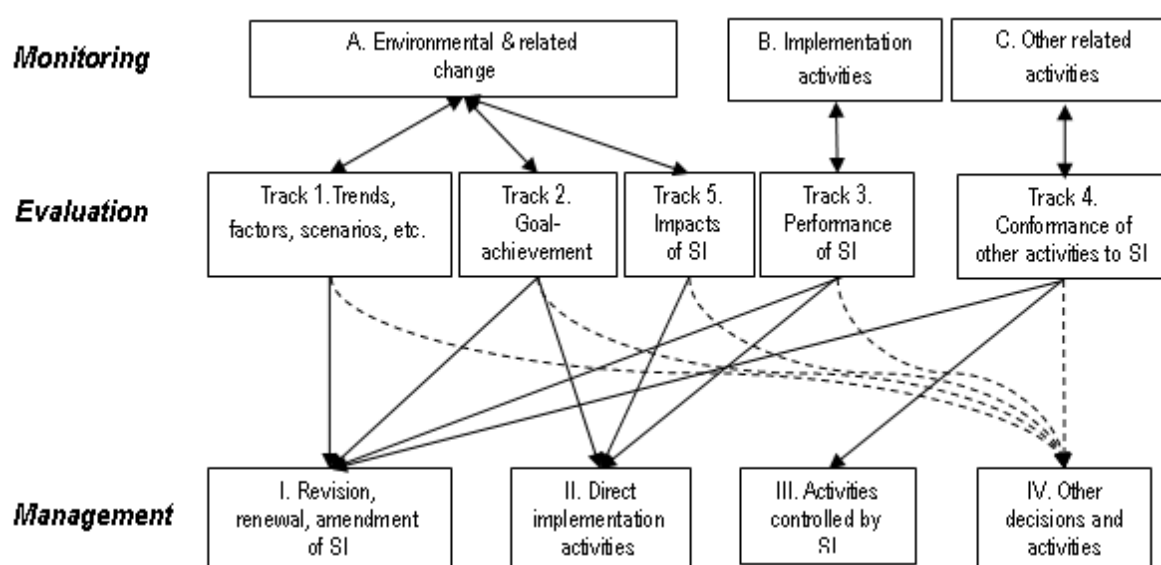
Track 3. Evaluating performance of strategies, with focus on ‘implementation’ activities and on how this affects subsequent planning, decision/policy-making via monitoring subsequent developments in the political-administrative situation, and also the success of achieving the intended environmental and sustainability targets (this relates to performance follow-up).

Track 4. Evaluating conformance of subsequent decision-making with the strategic initiative and the SEA; the focus is on consistency in planning and decision-making, especially relevant for hierarchical planning systems (this is a form of conformance follow-up).

Track 5. Monitoring and evaluating of the actual impacts of the strategic initiative on the environment and sustainability with the purpose to understand the causal link between an observable fact and strategic initiative.

Source: Adapted from Partidario & Arts (2005,252-4).

This approach has taken into consideration a complex, multiple and mostly indirect nature of causality at strategic level. However, how the five tracks are combined with all four SEA follow-up components has not been comprehensively shown. The approach has been furthered by Cherp *et al.*(forthcoming) who have proposed a more holistic schematics of follow-up ‘paths’ running through the components of SEA follow-up (Figure 2:2).



Source: Cherp et al.(forthcoming).

Figure 2:2 Key elements of SEA follow-up monitoring, evaluation and management

Monitoring is usually based on a system of indicators. In SEA follow-up, it may include and combine indicators proposed for achieving SEA follow-up objectives with those transferred from SEA recommendations. Frequently recommended are the drive-pressure-state-impact-

response (DPSIR) framework of indicators⁵³ or its derivatives and the framework of input-output (and outcome) indicators⁵⁴. Those conceptual frameworks organise and structure indicators in the context of causal chains (Niemeijer & de Groot 2008,15). The choice of indicators is dictated by the objectives and a desired outcome of SEA follow-up. Also, in order for “monitoring to be relevant...indicators should be selected with reference to the evaluation tasks” (Cherp *et al.* forthcoming). What sort of information is needed and what the appropriate methods for its collection are, is to be specified at this stage depending on the planning level and type of a PPP. In accordance to these, the sources of information should be identified. Data availability is crucial as long-term measurements may be resource-consuming. Thus, the use of existing monitoring data and arrangements⁵⁵ is one of the principles of designing a feasible monitoring scheme (Barth & Fuder 2002,53), especially for monitoring of environmental and sustainability changes (Cherp *et al.* forthcoming). Utilisation of existing monitoring systems is also encouraged by the SEA Directive, Art. 10.(2) “...existing monitoring arrangements may be used if appropriate, with a view to avoiding duplication of monitoring” (EC 2001,16). However, presumably the use of data from external monitoring systems may hamper its linking to internal evaluation and management activities (Cherp *et al.* forthcoming). Thus, SEA follow-up will need to provide for such links. SEA follow-up monitoring schemes should assign tasks to relevant actors and “determine roles that should initiate, maintain and report the monitoring plan” (DGTREN 2005,64). Overall, it is crucial that SEA follow-up provides “for a clear division of roles, tasks and

⁵³ The drive-pressure-state-impact-response framework is a common basis for deriving indicators. For example, it is recommended for implementing the monitoring requirements of the SEA Directive. The DPSIR framework includes: indicators for driving forces to describe the social, demographic and economic developments in societies and the corresponding changes in life styles, etc.; pressure indicators to describe developments in release of substances, physical and biological agents, the use of resources and the use of land; state indicators to give a description of the quantity and quality of physical, biological or chemical phenomena in a certain area; impact indicators to be used to describe the impacts resulting from the driving forces; and response indicators to refer to responses by groups and individuals in society, as well as government attempts to prevent, compensate, ameliorate or adapt changes in the state of the environment (Barth & Fuder 2002,28).

⁵⁴ E.g., a derivative from this is a framework of objectives, targets and indicators to facilitate implementation, monitoring and review of spatial and land use PPP developed in the ODPM Guidances for monitoring Regional spatial planning and for monitoring local development frameworks. They state that once objectives have been identified and the related policies developed, it is possible to identify relevant output indicators and set appropriate targets against which movement toward or away from policy objectives can be measured over time (e.g., ODPM 2005a; ODPM 2005c).

⁵⁵ SEA follow-up can draw on existing data, monitoring activities and reporting systems, such as those related to: national, regional, or even local sustainability strategies and local agenda 21s; permits and environmental management systems; general state-of-the-environment monitoring; regional monitoring programmes; institutional annual reporting; registrations of complaints; knowledge of the public; expert judgements; or even SEA/EIA follow-up reports for other plans/projects (Partidario & Arts 2005,251).

responsibilities” among the proponents of PPP, the regulators and other stakeholders (the public) (Partidario & Arts 2005,251). Follow-up actions may require special qualifications. For example, data collection, processing and storage involves application of different tools and databases, e.g., GIS and other software, specialised governmental databases, existing national monitoring schemes, various sectors databases. Therefore, any party may involve experts with specialist knowledge, such as academic and scientific communities, consultants, subcontractors. Different actors can implement tasks separately or jointly depending on the scale and ownership of PPPs (Box 2-3). If needed, a monitoring group can be established with representatives of the concerned bodies, authorities or organisations (DGTREN 2005,64).

Box 2-3 SEA follow-up actors and their possible tasks

Actors	Possible tasks
<ul style="list-style-type: none"> ➤ State proponents (authorities, different government agencies) ➤ Private proponents ➤ Consultancies, research institutions, experts (subcontractors) 	Collection, evaluation, and processing of monitoring data, interpretation and management
<ul style="list-style-type: none"> ➤ Auditing companies (conducting EMS, CSA, etc. certification integrated with follow-up programs) ➤ Community, NGOs and interest groups. 	Auditing, evaluation, and reporting Feedback and communication (probably collection of data)

A wide circle of actors in the SEA follow-up process may cause unexpected difficulties in identifying the relevant stakeholders. “The actors in implementation may be not the same as proponents of the strategic initiative” (Cherp *et al.* forthcoming). In practice, some actors, e.g., governmental bodies/developers appear to be easily identifiable, whereas others, such as local community members or NGOs and those indirectly affected, are not (Bisset 2000,152).

2.5.4.3 Evaluation

Evaluation⁵⁶ as an element of follow-up deals with the structuring, analysing and appraising information obtained through monitoring and auditing of PPPs that have been or are currently implemented (Morrison-Saunders & Arts 2004,4). Despite the boundaries set between monitoring and evaluation, they can hardly be separated from each other. Evaluation makes use of monitoring data. Similarly to monitoring, it concerns the comparison of data with predictions, standards, and expectations; however, it differs from monitoring in that it involves “appraisal of environmental performance of activities” and requires “value

⁵⁶ In general, evaluation includes five key activities (Devuyst 1997): 1) *formulating questions, criteria and standards* (the evaluator should ensure their validity via familiarising her/himself with the subject to be evaluated, its stakeholders, etc.); 2) *selecting designs and sampling procedures* (once it is clear what to study, the next step is to decide how to study it, e.g., through experimental, quasi-experimental and non-experimental designs); 3) *collecting information* (through questionnaires, observations, interviews, record reviews, etc.); 4) *analysing information* (a way of describing and explaining information), and 5) *reporting information*.

judgments to be made” (Morrison-Saunders & Arts 2004,4). An inquiry into differences between evaluation and monitoring has concluded that (Persson & Nilsson 2007,483):

“a) evaluations are undertaken less frequently, but are potentially broader and deeper in scope, b) evaluations involve measuring performance against criteria and making a value judgement, rather than just measuring; and c) evaluations may question underlying intervention rationales and strategies to deal with a problem, rather than focusing on operational aspects”.

The experience of EIA follow-up teaches that evaluation should: i) determine the completeness and adequacy of information gathered; ii) compare the results to baseline information to determine the accuracy of assessment and effectiveness of mitigation measures; iii) compare monitoring/audit results with existing guidelines to determine compliance; and iv) note any unforeseen effects for further assessment (Baker 2004,53). Whilst all of those are adequate for SEA follow-up evaluation, its more complex, dynamic, and strategic nature calls for taking account of multiple environmental, socio-economic, and political changes and actual emergent and unpredicted impacts. The multi-track approach above (Box 2-2) has been developed to cope with such a synergy of tasks providing for five evaluation paths that differ in goals, scope of data and resources needed, and methods to be used. Key issues for evaluation along those paths are 1) actual changes, trends, factors, scenarios, etc.; 2) goal-achievement, 3) impacts of a strategy, 4) performance of a strategy, and 5) conformance of other activities relevant to a strategy (Figure 2:2, based on Box 2-2) (Cherp *et al.* forthcoming). The specific goals they suit to serve are: track 1-for reviewing the impact of cumulative actions signalling the need for further investigation and/or adaptive managerial action; track 2-for communication purposes; track 3-for understanding the performance of the implementation and formulating adaptive management actions; track 4-for controlling plan implementation and early warning in the planning process; and track 5-for learning about real effects (Partidario & Arts 2005,254). The tracks can overlap and be used in combinations; e.g., evaluating impacts of a PPP (track 3) or its performance (track 4) can be combined with a periodic check of the quality of the socio-economic situation and environment in the PPP area (track 1) (Partidario & Arts 2005,254).

SEA follow-up evaluation can bring together information from both external and internal sources and could be conducted either in-house or externally⁵⁷. However, evaluation may involve vast information of a different kind and complexity that make it rather complex. In

⁵⁷ Persson & Nilsson (2007,484) based on Vedung (1997) argue that choice for internal or external evaluation depend on the purpose in mind: internal is usually better for improving a program and general learning within an organisation, while external is better for accountability and improving basic knowledge around a problem.

this regard, Cherp *et al.* (forthcoming) suggest assembling “‘SEA follow-up evaluation teams’ to prepare evaluation reports...in the same way as SEA reports are prepared”.

Evaluation should be aligned with the time of reviews in the planning cycles: “formal regular evaluations of policies or reviews and revisions of plans may provide convenient time-points for SEA follow-up evaluation” (Cherp *et al.* forthcoming). Fitting evaluation into the existing organisational PPP structure will allow for better integration and utilisation of its results.

2.5.4.4 Management

EIA/SEA follow-up management is about making decisions and taking appropriate actions in response to issues arising from monitoring and evaluation (Morrison-Saunders & Arts 2004,4). Contrary to the relatively more developed ‘monitoring’, management has not been discussed greatly. The few existing papers on SEA follow-up focus mainly on monitoring and evaluation components (e.g., Hanusch & Glasson 2008; Persson & Nilsson 2007). Meanwhile, management is probably “the most important and challenging component of SEA follow-up that ensures continuous integration of sustainability...into unfolding strategic initiatives” (Cherp *et al.* forthcoming).

The primary roles of SEA follow-up management are to:

- address and react to unforeseen events or unanticipated impacts (Morrison-Saunders & Arts 2004,4);
- allow for the adjustment of our imperfect knowledge about our actions, society and the environment (Arts & Morrison-Saunders 2004b,36); and
- ensure that SEA and SEA follow-up recommendations are translated meaningfully into decisions and actions implementing a strategy and protecting the environment (Cherp *et al.* forthcoming).

Thus, management should focus on two fundamental things, namely on making implementation of a PPP environmentally/sustainability accountable and on developing flexible and adaptive managerial responses based on monitoring and evaluation findings.

Decisions, actions, and responses are key levers of managerial activities. Therefore, Cherp *et al.* (forthcoming) have raised two questions in relation to managing strategic initiative: which ‘decisions and actions’ should be targeted? and how can these be influenced? Regarding the former, they have divided possible actions and decisions into four types (of management) (Figure 2:2): I. decisions on revising and amending a strategy; II. actions directly

prescribed in a strategy and often implemented by the proponent; III. decisions and actions implemented by other actors but controlled by a strategy through formal frameworks; and IV. all other decisions and actions, which are affected by a strategy⁵⁸. Cherp *et al.* (forthcoming) suggest that any or several types of management may be important and relevant for different types of strategies. Concerning the second question, the authors believe that type I-III actions and decisions may be influenced by legal, administrative or other institutional conditions; whereas influencing type IV actions/decisions is problematic as they lack *a priori* known, formal and easily traceable links with the original initiative, and actors behind them are rarely ‘owners’ of the original SEA. (Cherp *et al.* forthcoming) suppose that linking SEA follow-up to Environmental Management Systems (EMS), in the same way as EIA follow-up is often linked with EMS or Environmental Management Plans (EMP), may allow the establishment of specific organisational, communication or other arrangements needed to involve the relevant actors. Little, if any, evidence can verify the feasibility or relevance of such an integrated approach in practice. More conservative views presume that ‘Strategic Environmental Management Plans’ (SEMPs) (not linked to EMS in any way) may be designed to take over the SEA functions from the PPPs-making stage through their implementation to the next planning cycle and revision of SEA (George 2000,189-191).

A flexible and adaptive approach to management in EA follow-up is widely recognised to be crucial for addressing the dynamic nature of the environment (e.g., Arts & Morrison-Saunders 2004a). Those characteristics are obtained in follow-up if its management component is regularly linked to the outcomes of monitoring and evaluation. “Monitoring for management” (Morrison-Saunders & Bailey 1999) allows for promptness of management reactions and effective feedback features in EIA follow-up. The importance of adaptive environmental management was advanced via the concept of AEAM (see [Point 2.2.2](#)) three decades ago. It has been repeatedly discovered and readjusted⁵⁹ throughout the history of EIA and SEA in

⁵⁸ To illustrate (Cherp *et al.* forthcoming): Type I decisions deal with periodic reviews and renewals that strategies undergo. In this context, monitoring and evaluations according to Tracks 1, 2, 3 and 4 ([Box 2-2](#)) are especially relevant. Type II, e.g., a transport plan may prescribe road construction. Evaluation of goal-attainment (Track 2), performance (Track 3) and actual impacts (Track 5) are especially relevant here. Type III: e.g., a land-use plan may restrict certain type of developments in certain zones. Checking conformance of subsequent decision-making on development proposals is especially relevant here (Track 4). Type IV: e.g., a national energy policy may influence consumer and investor behaviour without directly controlling it. Such effects are mainly achieved through price signals, ‘soft’ incentives and other information-based or similar indirect mechanisms.

⁵⁹ For example, Council on Environmental Quality, USA has advanced a “new approach”, a so called Science-Based Flexible Management Approach designed to safeguard the environment once the initiative has been approved by means of adaptive management methods (Eccleston 1999,60).

response to the limitations of rational planning and uncertainties in prediction and the environment. AEAM promotes the principle that EIA should not be a one-time exercise, rather it should be an ongoing examination of impacts, where the search for the better solutions in EAs and their objects should include “trial-and-error” attempts alongside monitoring (Holling 1978,8). Here most efforts are to be put not into lessening of uncertainty but into designing for uncertainty to obtain benefits from the unexpected (Holling 1978,8). Thus, according to Holling (1978,9) the core of the interactive process of adaptive environmental management is in developing techniques aimed at both reducing uncertainty and benefiting from it. The SEA literature has hardly considered the AEAM approach, “possibly because of its inherent scepticism regarding viability of strategic initiatives” (Cherp *et al.* 2006,202) or because of the predominant SEA focus on ex-ante assessment. However, adaptive management is particularly important to SEA follow-up, which should aim to create institutional and organisational conditions for formulating adaptive management actions (see the SEA follow-up objectives). Moreover, the potential to take adaptive management actions will be an important principle in scoping for future planning and, thus, SEA follow-up might play a role as a means of adaptive planning (Partidario & Arts 2005,251).

As mentioned, for adaptive management to effectively utilise and learn from monitoring and evaluation is important. This, however, may be impeded by the organisational resistance and political constraints to learning from evaluation (Persson & Nilsson 2007,491). On a par with technical difficulties, these two problems should be acknowledged and addressed in SEA follow-up design. It should also focus SEA follow-up management on the identification of “those decisions and actions which are most significant for implementing a [strategy]...and which can be reasonably influenced by SEA follow-up” (Cherp *et al.* forthcoming).

2.5.4.5 Communication

Informing internal and external stakeholders and the wider public about the implementation progress of a PPP and its EIA/SEA follow-up and gaining feedback from them are tasks of communication (e.g., Arts *et al.* 2001; Morrison-Saunders & Arts 2004,5). If designed as an open process with active participation, communication may enhance cooperation of various parties, contribute to better outcomes for all involved (Arts & Morrison-Saunders 2004b,36) and provide for continuous learning and capacity-building among stakeholders. Also, public

involvement⁶⁰ can be a resource in its own right (Arts & Morrison-Saunders 2004a,295) owing to the local knowledge, information and values the public holds. As the EIA follow-up practice shows “increased citizen participation in follow-up activities such as monitoring could help to improve the quality and local relevance of [EA]...at the same time advancing the process toward sustainability goals” (Hunsberger *et al.* 2005,624). The EIA follow-up practice demonstrates that follow-up activities may be driven and successfully implemented by NGOs and the public in addition to or separately from proponent- or regulator-driven follow-up (e.g., Hunsberger *et al.* 2005; Morrison-Saunders & Arts 2004; Ross 2004).

The communication component in SEA follow-up has similar objectives; however, the participatory approaches, such as negotiation within and between actor groups, are stressed more. For example, “communication with, and participation of, stakeholders should go beyond just informing, and include consultation, or even partnerships” (Cherp *et al.* forthcoming). Those forms of communication are more than important as implementers of PPPs and SEA follow-up are seldom their formulators, and therefore implementers need to be informed about PPP- and SEA-making process (e.g., Cherp *et al.* forthcoming).

Presumably, communication and involvement of stakeholders may occur at all other stages of SEA follow-up in two-way streams, e.g., involving participants in both conducting monitoring and commenting on its results. Such a close interaction and exchange of information might allow for greater transparency and credibility of strategies. Different forms of involvement described in the SEA literature (e.g., Fischer 2007) can be combined and incorporated in SEA follow-up design according to its purpose and evaluation track. Some forms of those, mainly reporting, can be occasionally found in legislation⁶¹ or guidance in different countries; however, their enforcement is considered to be rather weak (e.g., in Fischer 2007).

Overall, as Cherp *et al.* (forthcoming) argue since communication is important for learning and formation of cultures, networks, and institutions (i.e. the key components of societal

⁶⁰ The terms ‘communication’, ‘participation’, ‘consultation’ and ‘reporting’ are often interchangeably and confusingly used; meanwhile they differ as follows: participation is an engagement process, via which the public contributes to the decision-making process by exchanging information, predictions, opinions, interests, and values; consultation is an engagement process, in which the public is called to comment on documentation; communication is a one-way process with objectives to inform and assist the public towards understanding of problems, alternatives, opportunities, and solutions; and reporting is a documentation process, which makes the results available in a written document, on the basis of which the public can make their comments, provide feedback on the analyses and decisions made (Fischer 2007,34). Methods for involvement and consultation are described in many works (e.g., Bisset 2000; Rauschmayer & Risse 2005; Vicente & Partidario 2006)

⁶¹ E.g., the SEA Protocol (Art. 12) states that: “the results of the monitoring undertaken shall be made available, in accordance with national legislation, to the authorities...and to the public” (UNECE 2003).

change), it should be the central element of SEA follow-up, especially if SEA aims to achieve strategic change for sustainability.

2.5.5 Problems in follow-up at strategic levels

While there are suppositions about potential benefits and useful outcomes of SEA follow-up, its feasibility remains debatable. As Arts (1998,331) notes, implementation of SEA follow-up is not only difficult, but the relevance of doing it can be questioned. Problems that impede the practicability of SEA follow-up (Box 2-4) stem mostly from the particularities and complexities of both SEA and strategic planning as discussed in the SEA discourse section.

Box 2-4 Issues for SEA follow-up

<i>Impeding issues</i>	<i>Explanation</i>
<i>Position and function of SEA in the policy or planning cycle</i>	Preparation of a PPP and its SEA can be either a new policy/planning cycle (old PPP is revised or replaced) or an ongoing process where PPP is modified with SEA supporting the ongoing decision process. In the latter case, SEA looks at both the effects of changing policies and the follow-up of past planning policies. The function of strategic decision-making here is to set a framework for future decisions by articulating goals, priorities, constraints and/or standards.
<i>Comprehensive and abstract nature of initiatives</i>	Compared to projects and EIAs, PPPs are more comprehensive; however, in practice they will not be fully comprehensive; instead, priorities need to be established to enable focused analysis and integration to the greatest possible extent. Strategic proposals are usually formulated in abstract terms and the quality of information is subject to obvious limitations. Analysis must therefore be defined differently from concrete projects.
<i>Importance of subsequent decision-making</i>	In a strategic context, decisions are made on the questions <i>why, if/whether, what or where (general)</i> , but not on the detailed questions of ‘where’ or ‘how’ to implement PPP. The latter need detailed strategies with EIAs or EIA-based SEAs, the implementation of which will generate <i>measurable</i> impacts on the environment. This subsequent decision-making can be informative for SEA follow-up in terms of backward links to the initial PPP.
<i>Difficulties in establishing causal relationship</i>	Planning decisions are influenced by, or dependent on, many other parties, sectors and interests and involve multiple developments and direct/indirect impacts. Correlating long-term and synergistic effects with strategic decisions at one single point is difficult. So, much is unsettled when preparing the strategy and SEA, and follow-up has to deal with complex causality issues and look beyond simple goal-means and dose-effect relations.
<i>Dynamic context of strategic planning and SEA</i>	Many developments may occur between finalising a strategy & SEA, and the occurrence of impacts on the environment and society, e.g., changes in original intentions, in public or political views, etc. Such developments may be related but can also be independent of the strategic initiative. The content of PPP and SEA impact information may become outdated and unpredicted calling for some form of adaptive management and follow-up.
<i>Conformance⁶² with, and performance of, the strategic policy and planning decisions</i>	Both conformance with, and performance of, the strategy and planning decisions may be relevant in SEA follow-up. PPPs address not only the bio-geo-physical reality, but also and importantly the subsequent planning and decision-making context. Thus, SEA follow-up must cross-relate conformance of the final planning results (changes in the environment, society) with the performance of the strategy in terms of facilitating future development.
<i>Decision-making level at which SEA</i>	Different levels of decision-making imply a different rationale, product and scale. This has implications for SEA follow-up. It might be useful if it not only comprises a summative

⁶² Arts (1998,331) argues that at strategic levels conformance evaluation may have a limited value as an evaluation criterion; nonetheless, it is seen as relevant alongside performance evaluation yet hard to accomplish.

Impeding issues	Explanation
<i>has been undertaken</i>	ex-post evaluation (i.e. after decision-making), but also formative ex-ante evaluation (i.e. appraisal before (new) decision-making) ⁶³ . The latter is especially relevant as, after time, PPP might be replaced by new ones.

Source: Adapted from Partidario & Arts (2005,249-251) and Arts (1998,331).

Whereas those problems may practically impede SEA follow-up, they also emphasise the need for it (Partidario & Arts 2005,250).

As seen, the basic concerns relate to the vagueness as to how planning/decision-making and SEA are integrated and causalities are established given the non-linearity and bounded rationality of strategies and respectively their follow-up (e.g., Cherp *et al.* forthcoming; Partidario & Fischer 2004; Partidario & Arts 2005; Perdicoulis *et al.* 2007). Similarly to SEA, the streamline assumptions of a strict top-down and one-directional tiering in strategic follow-up are also questioned. The multiple effects of strategies necessitate both downward and upward follow-up to provide for a feedback loop and to consider inter-sectoral dimensions (Partidario & Fischer 2004,234; Partidario & Arts 2005,248). Thus, the fact that the consequences of PPPs may be other PPPs, as per a vertical, horizontal or diagonal tiering, makes SEA follow-up even more complex. Given that “tiering may, or may not, have a formal linkage” (Xuqingrui 2001,257), it is desirable, though not always possible, that tiers should be tracked to identify the causal links according to each specific case (Partidario & Arts 2005,252). The implications of the mentioned problems for strategic follow-up are summarised by Partidario & Arts (2005,249) as:

- ‘*splash effect*’ meaning that the effects of a strategic initiative may spread in all directions and therefore follow-up to SEA needs to observe the same, higher and lower decision levels;
- ‘*conformity effect*’ requiring that follow-up to SEA must be coordinated and consistent with the follow-up to (i.e. delivery of) a PPP and should follow the modification in a PPP.
- ‘*strategic effect*’ implying that a PPP may be approved but never fully implemented in practice, which may in itself be a strategic reason for follow-up.

Partidario & Arts (2005,254) argue that the multi-track approach to SEA follow-up (Box 2-2) may provide ways to handle the splash, conformity and strategic effects as well as other issues. However, the current practice does not have a lot to say in this regard; how the

⁶³ Formative ex-post EA evaluations are undertaken in the early stage of the planning process to improve the design or implementation of PPP or project while it is still possible, whilst summative ex-post evaluations are applied in the late stages of policy implementation to appraise its accomplishments (Arts 1998,79).

problems in SEA follow-up are practically addressed is hardly known. At the same time, the ways of setting the boundaries to operationalise SEA follow-up and meaningfully integrating it with PPP delivery are still open to discussion.

2.5.6 Frameworks for SEA follow-up and towards evaluating its practice

Under what conditions can SEA follow-up be relevant and effective given the issues and problems listed above? In this light, what might be the constituents of an (exploratory) SEA follow-up framework? These are the questions to be explored in this research leaning on the EIA follow-up experience and on some recent research efforts seeking to propose frameworks for certain components of SEA follow-up.

The EIA follow-up literature suggests exploratory-evaluation frameworks for successful follow-up based on the interplay of *contextual factors* ('what?'), in which follow-up takes place, and *stakeholder groups* ('who?') that have a role to play in answering the question: 'how' to make EIA follow-up successful? (e.g., Arts & Morrison-Saunders 2004a; Morrison-Saunders *et al.* 2003; Morrison-Saunders & Arts 2004). Contextual 'what?' factors commonly include i) regulations and institutional arrangements, ii) approaches and techniques, iii) resources and capacities, and iv) types of activity⁶⁴. Interaction between contextual factors and stakeholders (proponents, regulators and communities) is what determines the nature and success of EIA follow-up (Morrison-Saunders & Arts 2004,14). Other similar frameworks focus on evaluating the extent to which the main steps in the EIA follow-up process are implemented linking them up with the contents of evaluation and management issue for its conduit: generating and selecting relevant evaluation issues; making the evaluation issues operational; data collection; appraisal of results of evaluation research, and decisions about taking measures, adjustments (Arts 1998,197-214). The management issues have included organisational, financial, juridical and administrative aspects (Arts 1998,215-228).

The 'questions-type' content-context-process framework is considered suitable for inquiry into SEA follow-up as well. For example, to explore monitoring in strategic, regional spatial

⁶⁴ (i) Regulations and institutional arrangements include formal regulatory and administrative frameworks for conducting EIA follow-up, manuals, self-regulations, approval conditions, etc.; (ii) Approaches and techniques are methods/methodology utilised in follow-up practice. They can range from scientific studies to more informal and pragmatic approaches and may differ depending on whether they occur at a policy or plan or program levels; (iii) all kind of resources, skills and possibilities to use them in order to undertake EIA follow-up; and (iv) to determine how to conduct follow-up it is important to know the type of initiatives, which is determined in the following terms: the scale of initiatives (big vs. small investment), planning and decision-making levels, initiator of a project (see in Arts 1998; Morrison-Saunders *et al.* 2003; Morrison-Saunders & Arts 2004,10).

strategies, it has been modified to accommodate questions: *why, what, who, how, when, and with what outcomes?* (Hanusch & Glasson 2008). Through this extended approach a greater and more thorough focus has been placed on: the reasons and objectives of monitoring (why to monitor?), its object (what exactly to monitor?), stakeholders (who must monitor?), methods (how/using what kind of methods should monitoring be done?), schedule (when and with what kind of frequency to monitor?), and what actually is the outcome of monitoring?

Another recent step towards developing a theoretical framework for SEA follow-up is based on the analysis of the SEA Directive, parallels with policy/program evaluation and lessons from EIA follow-up (Persson & Nilsson 2007). That research has centred on seven main issues: 1) monitoring vs. evaluation, 2) organisation and ownership (which is basically equivalent to how? and who? questions in other frameworks), 3) scope of activities (what?), 4) integration with other processes; 5) establishing causal relationships, 6) data collection, and 7) reporting, responding to and learning from SEA follow-up results. This theoretical quest has reached a number of conclusions that, as suggested, can be used for a future toolbox framework for SEA follow-up (Persson & Nilsson 2007,492):

- competent authorities need to resolve which organisations should be responsible for monitoring and evaluation,
- the difference between monitoring and evaluation must be recognised (the latter may question assumptions of a PPP and can more freely choose criteria for judging the outcomes),
- the appropriate scope for monitoring and evaluation activities cannot be generally determined, given the diversity of interventions subject to SEA (the evaluation literature might be useful),
- integration with evaluations of economic and social aspects of a PPP is useful, but possible goal conflicts need to be elucidated,
- establishing causality is a particular problem in SEA follow-up, and
- to compile inventories of existing environmental monitoring and other relevant datasets at the national level would be important for data collection in SEA follow-up.

Some works seek to provide frames for designing SEA follow-up. For example, Cherp *et al.* (*forthcoming*) recommend starting a SEA follow-up program with defining the envisioned PPP implementation activities, dividing them into monitoring, evaluation, management and communication, and aligning and adding to them the SEA follow-up activities.

Responsibilities for SEA follow-up should be carefully identified taking stock of a variety of actors, and actions-decisions beyond the organisational context of the original strategy (Cherp *et al.* forthcoming). Cherp *et al.* (forthcoming) make several conclusions to be considered for the practice of SEA follow-up, suggesting that it should:

- be undertaken throughout the life-cycle of a strategic initiative;
- be designed and endorsed during the SEA process/before a strategy is launched;
- include monitoring, evaluation, management and communication;
- extend beyond monitoring and managing impacts of a strategy and ensuring its conformance to the original plan to verifying goal-achievement, identifying unforeseen circumstances, and periodically validating the original assumptions of a strategy; and
- be integrated with implementation of a strategy and tailored to its specifics.

Based on the theoretical considerations and some practical evidence, Partidario and Fischer (2004,244) propose a guiding frame for program-level SEA follow-up that focuses on defining the purpose of follow-up, establishing the approach and reporting the outcomes.

The theoretical and empirical exploratory-evaluation frameworks for EIA, SEA and their follow-up recognise three levels of abstraction⁶⁵: the micro-scale level (individual proposals with all related ex-post activities), the macro-scale level⁶⁶ (EIA/SEA follow-up related jurisdiction/system level within a particular country), and the meta-scale level (conceptual examination of multi-jurisdictional/-national concepts) (e.g., Morrison-Saunders & Arts 2004,312; Sadler 2004,253). Presumably, micro-level studies can allow for detailed examination and learning in particular contexts; macro-level studies offer a frame against which to interpret the policy implications of follow-up, that can add to the larger stock of knowledge and further the development of ex-post evaluation methodology; and meta-level studies may add to the generic picture of the efficacy of EIA/SEA as policy instruments (Sadler 2004,253-5). Such a differentiation between evaluation levels might be also important when evaluating the SEA follow-up implementation.

Several micro-level and mixed - micro-macro level- studies of SEA follow-up have been recently conducted. The biggest in scope inquiry, by Partidario & Fischer (2004), has

⁶⁵ Under the term ‘abstraction’ some authors imply the levels of abstraction between strategic and operational initiatives (Partidario & Arts 2005,252), others imply the approaches to the evaluation of SEA/EIA (e.g., Morrison-Saunders & Arts 2004; Sadler 2004). This work uses this term in the clear context to avoid ambiguity.

⁶⁶ In empirical research different level approaches can be combined, e.g., a micro- and macro-level combination is explored for the evaluation of the EIA follow-up systems in the UK and Georgia (Gachechiladze 2007).

reviewed SEAs from Germany, Hong Kong, the Netherlands, and the UK. The authors have not deployed any specific evaluation framework but have investigated the cases according to four SEA follow-up types (conformance, performance, uncertainty, and dissemination). Their findings include: i) uncertainty follow-up does not exist in practice, whilst the three other follow-up types do to some extent; ii) there are monitoring schemes for PPPs in place though not always legally required; where such requirements existed, the indicators developed and used exceeded the number of the formally prescribed ones; iii) a review of EA legislation and guidance for existence of follow-up requirements in a few selected countries shows that only a few EU countries have national SEA follow-up requirements, namely the Netherlands, and the UK and Finland which have monitoring requirements in their EIA/SEA Guidelines; Canada has no special follow-up requirements in the Canadian Directive, but there are some within departments; South African Guidance identifies monitoring and auditing as one of the key elements of the SEA process (Partidario & Fischer 2004,237-9). The authors conclude that the future directions for SEA follow-up may need to be related to currently “often informal and infrequent” PPP evaluation practices (Partidario & Fischer 2004,245).

Another mixed macro-micro level research of monitoring of the regional spatial strategies in the UK and Germany has concluded that both countries can possibly cope with the challenges of monitoring, however “the methodological framework, database, benchmarks, institutional conditions as well as personnel and financial resources are often insufficient or inappropriate and relevant skills are lacking” (Hanusch & Glasson 2008,615). The research emphasises that a follow-up task of SEA is just starting and needs time to grow and that SEA/SA monitoring has the medium- to long-run potential to ensure a more sustainable regional development (Hanusch & Glasson 2008,615).

2.6 SEA follow-up assumptions and conclusions

SEA has evolved in the light of the need to reinforce project EIA and to integrate the environment in strategic decision-making to facilitate strategic changes for sustainability. Questions about how effective SEA is in achieving such changes are constantly on the SEA research agenda. They drive it to rethinking some theoretical and methodological foundations of SEA and call for new evaluation approaches. Uncertainties, divergences in, and dynamics of strategies and the need to learn and provide feedback have guided the quest for new approaches to SEA follow-up. It is believed to be able to increase the long-term effectiveness of SEA, integrate environmental and sustainability concerns along the lifecycle of strategic

initiative and thereby foster a desired transition to sustainability.

Despite the acknowledged importance and promise, SEA follow-up remains an immature part of SEA with limited theoretical underpinning and empirical evidence. Numerous questions arise about its benefits, feasibility, and overall utility for the realisation of strategies. Exploring these questions is complicated by complexities inherent to strategic planning and decision-making. In relation to SEA follow-up they *inter alia* translate into an unclear function/position of SEA follow-up due to the abstract formulation of PPPs; difficulties in establishing causalities and tracking after-linked decisions on different planning levels; a need to handle the unpredictable and emergent; methodological and technical problems to make or keep SEA follow-up flexible and adaptive to deviations; the unclear nature and scope of changes to SEA follow-up and its PPP in response to alterations/failures of other related initiatives, and an ambiguity as to how SEA follow-up and PPP delivery shall be integrated.

In the light of the conceptual immaturity and potentially difficult implementation of SEA follow-up, the overarching question is: Is SEA follow-up feasible and relevant and, if so, in what kind of forms and under what kind of conditions can it be effective and useful? To make the exploration of this question possible, the assumptions of the state-of-the-art SEA follow-up have had to be identified and formulated. The made ideas in this area are that:

- SEA follow-up should consist of monitoring, evaluation, management and communication components, preferably preceded by screening and scoping;
- Different types of strategic initiatives will require different SEA follow-up approaches;
- At higher planning levels, establishing causal links might be difficult;
- Due to implementation complexities at strategic planning levels, SEA follow-up might not always be possible or relevant (unless its benefits exceed the costs).
- SEA follow-up presumes larger openness to institutional political and socio-economic changes relevant to a strategy;
- SEA follow-up may be able to cope with emergent and unpredicted events (though the mechanism for doing so is unclear);
- A “splash” effect may occur in SEA follow-up (not necessarily based on tiering);
- Subsequent decision-making may be tracked according to the assumptions of tiering or otherwise;

- Focus in SEA follow-up might not be only on (actual) impacts, but also on the objectives and context of a strategy;
- Presumably, SEA follow-up can be designed and accomplished according to ‘tracks’, which schematically consist of the interplay of:
 - Three broad types of SEA follow-up monitoring
 - Five evaluation approaches matching with the SEA follow-up objectives
 - Four types of managerial decisions and actions (Figure 2:2);
- SEA follow-up might:
 - utilise existing monitoring data
 - conduct external and/or internal evaluations
 - establish new links and routine to get implemented/managed
 - deploy various communication and engagement methods at any/all stages of follow-up;
- SEA follow-up might be coordinated and consistent with PPPs’ implementation actions.

Overall, the SEA literature believes that SEA follow-up might be able to reduce gaps in the informational, implementation, and managerial spheres, to cope with unexpectedness and uncertainty, and through learning to adjust the factual course of strategies to sustainability.

Many of the SEA follow-up assumptions have roots in the rational thinking of SEA, which in itself has been subject to criticism. The efforts to rethink SEA, given the realities of ‘strategic’ decision-making, have drawn on the concepts from the theories of decision- and policy-making, planning, strategy formation and learning. Echoing the tradition of SEA, some recent works on SEA follow-up have tried to adopt the lessons from the theories of policy analysis and evaluation. This indicates the potential for a theoretical cross-fertilisation when exploring the assumptions of SEA follow-up and explaining some problems associated with it. Further research is needed to conceptualise SEA follow-up in a systematic way, to link it to the issues of the current SEA discourse and to advance from theory to practice (Chapters 4, 5 & 6).

CHAPTER 3. RESEARCH METHODOLOGY

This Chapter aims to guide the whole Dissertation research process. It explains what kind of methods, why and how are used to achieve the research objectives, discusses some research limitations, validity and ethnical considerations and concludes with a summary.

3.1 Research type: exploratory with combined methods

Research type, questions, and aims affect methods (see Punch 1998,3-5). The type of this research is largely ‘exploratory’ (e.g., Patton 1990), as it explores a relatively new field of SEA follow-up, where little work has been done and not much is known. The research utilises qualitative methods for its most part and quantitative (simple statistics) for some research stages, e.g., for an opinion e-survey. Such a combined approach gives a greater understanding of the nature and behaviour of the research phenomenon- SEA follow-up- and benefits the research by enhancing its validity, providing a general picture, and facilitating interpretation (e.g., Creswell 1998; Hakim 2000; Patton 1990; Ritchie & Lewis 2003; Sommer & Sommer 2002; Taylor & Bogdan 1984).

3.2 Research strategy

A framework for research was designed to direct it in a systematic and consistent manner and to define the methodological relations between the theory, practice, and research. To conduct the research on SEA follow-up a combined conceptual and theoretical framework strategy was chosen⁶⁷. It contains three levels headed by the overarching research question (Figure 3:1). At the higher level of the ‘abstraction ladder’, the theories are identified and concepts are proposed in relation to the current SEA and SEA follow-up discourse. At the lower abstraction level, the current vision of SEA follow-up is explored in the context of the identified concepts and theories and an evaluative and explanatory framework is proposed. At the lowest level, the theoretical elements of the framework are given operational definitions to become testable variables. Afterwards the framework is tested on several cases.

⁶⁷ The reasons for this were manifold: i) a conceptual framework pulls together concepts and theories relevant to SEA follow-up to map and inform a study (e.g., Tashakkori & Teddlie 2003); ii) whilst the use of theoretical frameworks implies applying a structure created by someone else in the literature, it is needed to develop explanations of findings and have a broader but phenomenon-centred theoretical perspective (e.g., Ritchie & Lewis 2003); iii) both theoretical and conceptual frameworks are used and useful for qualitative and quantitative research (e.g., Miles & Huberman 1984); and iv) conceptual frameworks help refine research questions in some reciprocal way (e.g., Punch 1998), thus making a case for an ‘iterative’ process used in this research (Figure 3:2).

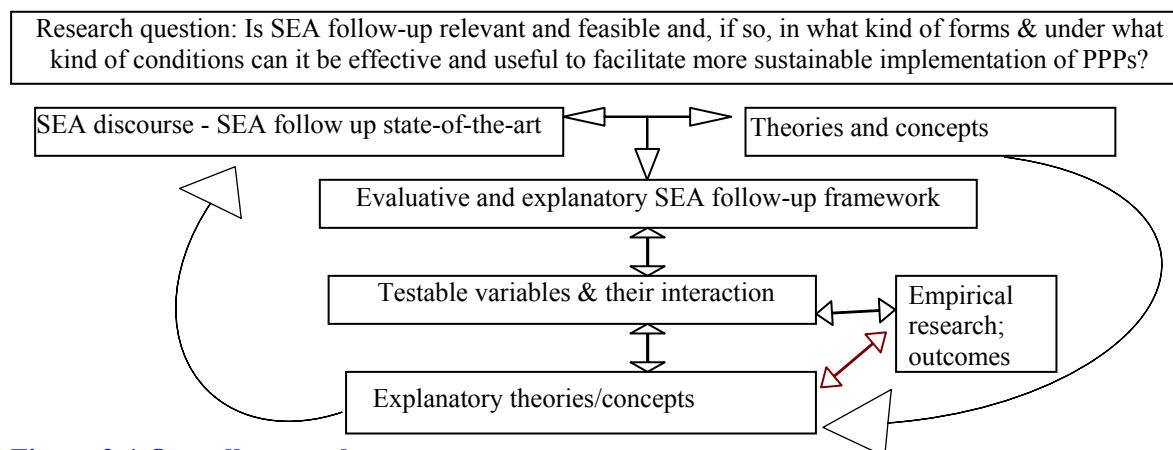


Figure 3:1 Overall research strategy

The research itinerary leads then back to the higher abstraction level for explanations.

3.3 Research design

The research encompasses one preparatory and two main research phases - theoretical and empirical ones (Figure 3:2).

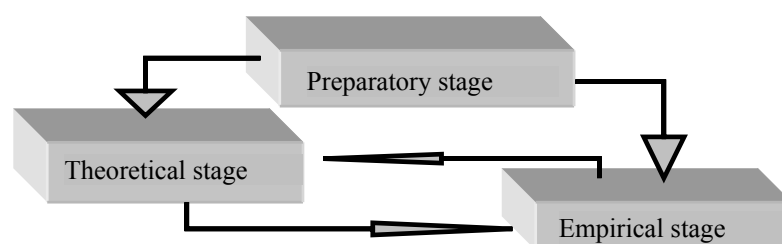


Figure 3:2 Research design scheme

The methodological steps and approaches are described below for each research phase.

3.3.1 Preparatory stage

This stage included screening of literature for the relevance to the research and setting its scope. At this stage, the research aim and objectives with the tasks were preliminarily formulated based on the familiarisation with the existing literature on the research area. This stage also served to verify the validity of the research rationale, i.e. the assumption that SEA follow-up is an important, but virtually unaddressed area in the literature representing a gap in the SEA theory and practice. Finally, this stage served to identify the potential cases for testing the SEA follow-up framework, if such existed. Alongside the desk research and correspondence with SEA professionals, this stage deployed two simplified forms of content

analysis⁶⁸. First, an ‘Internet-adopted’ one dealt with establishing the existence of ‘SEA follow-up’ via its direct wording and related phrases, e.g., ex-post SEA, ex-post SA, SEA monitoring (Appendix B). The principal domains of the data collection were the Internet space and e-databases⁶⁹, searched for different sources of the relevant literature, e-books, internationally published articles, academic papers, conference proceedings, and work pieces as well as institutional literature such as reports, instructions and guidelines. Each domain was explored for the word combinations until the subsequent search results started overlapping with the previous ones. Afterwards, the quest would change to other sub-domains. The search domains alongside the results are presented in Table 3-1 (as of the beginning of 2007). The second approach was a library-based content analysis. Two approaches complemented each other allowing for a triangulation of both sources and data gathering methods to investigate the SEA follow-up phenomenon.

Table 3-1 Search domains and major results of preparatory stage

Internet Domain - the concentration is on the topical search of articles/publications/case studies through the publicly accessible search spaces (in different language, excluding translated pages):			
<i>Language of the quest</i>	<i>English</i>	<i>Russian</i>	<i>English & Russian</i>
Search engines	<ul style="list-style-type: none"> • AltaVista • Google • Yahoo • Lycos • FrisGo • Ask.com, others 	<ul style="list-style-type: none"> • Rambler • Aport • Yandex, others 	
Meta-search machines			<ul style="list-style-type: none"> • Vivisimo • Hogsearch • RedZip search • AllinOne MetaSearch • MetaEureka, etc.
Results	A number of books, documents, cases and research projects are identified that briefly mention follow-up to SEA. Two books relate to the subject directly (Chapter 2).	The information is very limited (only one Chapter (10) on post-evaluation in SEA in a book by Cherp <i>et al.</i> 2000).	The search results have repeated those received in other spaces/domains.
E-databases Domain – the quest includes choosing several (scientific) literature databases and searching within them (with affiliation/passwords) and focusing on projects at EIA centres/universities			
<i>Sources</i>	<i>E-Libraries</i>	<i>PhD dissertations e-databases and research at Universities</i>	
	<ul style="list-style-type: none"> • Electronic Information Service (EISZ) • Electronic Library Information Navigator (including Lund library’s databases & links): • EBSCO research database (with all sources ticked) 	<ul style="list-style-type: none"> • SEA database of the Netherlands Commission for EIA http://www.eia.nl/ncea/database/index.htm • PhD Data on current research http://www.phddata.org • University Microfilms (Dissertation Abstracts database with over 1.6 million Master’s/PhD dissertations) http://www.lib.umi.com 	

⁶⁸ A method for analysing narrative data such as texts or transcriptions, in which the similar text segments are systematically categorised based on the predefined or specified characteristics (e.g., Tashakkori & Teddlie 2003).

⁶⁹ The author realises that the list of e-databases might not be exhaustive, as it includes publicly available sources, which are minimal, and only some spaces accessible under institutional subscriptions.

	International Impact Assessment Association database Research Library of International Institute for SD	<ul style="list-style-type: none"> University of Florida http://www.lib.umi.com/cr/ufl/main Iowa state university http://www.ageds.iastate.edu/departments/research University of Manchester http://www.manchester.ac.uk/ University of East Anglia http://www.uea.ac.uk/env Dissertations of Lund University http://theses.lub.lu.se
Results	SEA follow-up is seen as an insignificant, undeveloped element of SEA. Articles (7 more directly related), manuals, guidelines, reports, etc. with the mention of SEA follow-up are identified & incorporated in Chapter 2. Several perhaps <i>researchable</i> cases have been included in Point 3.3.3.1 .	A lot of SEA-related MSc and PhD theses are identified, yet only few of them touch upon SEA follow-up or its elements. The closest PhD topic is “SEA Monitoring of spatial plans in Germany” ⁷⁰ . As to the research projects, there are two related ones: “Ex-post tools: follow-up and evaluation in SEA” ⁷¹ and “SEA and Management in Local authorities in Sweden” ⁷² . Both started in 2005 at the Blekinge Institute of Technology and are close to completion.

When conducting both types of content analysis, three questions were kept in mind to encompass theoretical and practical aspects of SEA follow-up: Is there methodological literature on SEA follow-up (guidance, manual, papers, etc.)? Is there research on SEA follow-up (PhD/MSc theses, projects at EIA centres, etc.)? Are there SEA follow-up cases identified/reviewed and, if yes, where? The findings of this stage were incorporated in the relevant parts of the theoretical and empirical phases of this research.

3.3.2 Theoretical phase: three steps

The theoretical research phase contained three steps:

Step 1-exploring- was needed to fulfil Tasks 1a & 1b, Objective 1, i.e. to discuss the evolution of SEA theory and practice relevant to the emergence of SEA follow-up and to examine the current SEA follow-up discourse and practice and formulate/identify the state-of-the-art SEA follow-up assumptions ([Table 1-1](#), Chapter 1). It helped identify the scope of the theories relevant to the research field, shape the initial research prepositions and define narrower areas of theoretical foundations for conceptualising SEA follow-up (Chapter 2). This part of the research was accomplished through analysing appropriate literature and reviewing different data sources. To systematically analyse the available vast knowledge body on SEA a specific design for literature search and review was deployed, with the mixture of approaches:

➤ a systematic approach to the identification of appropriate materials needed to inform and underpin the study, conducted in the libraries and in the Internet via searching machines (meta-search and local engines in several languages);

⁷⁰ Marie Hanusch, UFZ Center for Environmental Research, Dept of Urban Ecology, Environmental Planning and Transport. Cooperation with this person has been established; started in 2005.

⁷¹ A contact with the working group has been established.

⁷² The author has participated in the desk research for the SEAMLESS and is in touch with the working group.

- a retrospective approach when looking at journal articles (from the most recent material backwards) along with using citations, leads, and references from the identified materials to the related subjects since the research is interdisciplinary by its nature; and
- a proper targeting of the literature search moving from the broader SEA area and cross-cutting disciplines, on to a narrow focus on SEA follow-up.

Although the research was primarily interested in mature forms of SEA with at least to some extent developed follow-up elements, it did not disregard SEA materials from developing countries (see the case inventory below). Neither was there a division between the literature on SEA in developed and transitional countries.

Step 2-conceptualising and proposing a framework, in the first place served to set the conceptual boundaries for SEA follow-up and identify theoretical components that potentially influence it. Drawing on the initial literature review, the methods of logical discussion, analytical discourse and additional desk research (guidelines, manual, best practice principles, etc.) were used in junction with a multiple triangulation, a branch of theoretical triangulation aimed at facilitating the development of integrated research with multiple studies, data sources and theoretical perspectives all simultaneously combined (Hakim 2000,174-5, citing Denzir 1978). The theories and their elements from the SEA discourse were related to SEA follow-up to allow for different visions and links. The organising principles and guiding assumptions for conceptualising SEA follow-up are detailed in Chapter 4. This part resulted in setting out the three broader dimensions of the evaluative and explanatory framework of SEA follow-up, namely, ‘process’, ‘structure’, and ‘context’. The SEA follow-up framework dimensions were not supposed to be equal, neither according to their relative weight for SEA follow-up, nor according to the number of variables, they could include. The logic behind this division is that the process of SEA follow-up unfolds in the broader context of antecedent conditions and within the organisational and societal structures that influence it and to some extent are influenced by it. Therefore, such grouping was useful for systematic study and accommodation of different elements of SEA follow-up.

Second, step 2 aimed to translate the conceptual and theoretical notions explored within the three dimensions of the evaluative and explanatory SEA follow-up framework into testable variables. For this, the key principles and issues of SEA follow-up were elicited based on the examination of the evaluation, implementation, management, and control elements of the implementation studies, program evaluation, strategic management, etc. The good practice criteria, benchmarks, principles and components of SEA and EIA follow-up were considered

as well. The key principles and issues were partitioned and incorporated into the previously formulated conceptual dimensions and constituted the variables of the evaluative and explanatory framework⁷³ (Table 3-2). One rationale for allocating them to the dimensions was to avoid mutually exclusive or contradicting variables in the same dimension to the extent possible. However, the variables had to fit well together to reflect a working ‘system’, rather than a collection of abstract concepts. The dimension-wise clustering of the SEA follow-up elements might be criticised as rationalistic and linear, as actually any stagist framework. However, this approach is of both heuristic and analytical utility to the SEA follow-up theory and practice. According to social scientific standards, a unit- or stage-wise scheme is analytically useful as long as it permits to generate prepositions that are interconnected, insightful, explanatory, and realistic (Bardach 2006,362).

Table 3-2 Variables of SEA follow-up framework

	Variable	Source of deriving
Context dimension	Existing planning and policy-making practice and the SEA system incl.: ➤ Planning type and policy framework for SEA/follow-up ➤ Political commitment to SEA/follow-up and influence ➤ Socio-economic preconditions for SEA/follow-up	Lit review, theoretical analysis & practice based
	Formal provisions for SEA and follow-up: ➤ Legislation and regulations (direct and indirect) ➤ Manuals, guidelines and guidance for SEA/SA/SIA ➤ Reinforcement and compliance mechanisms ➤ Formal distribution of responsibilities (incl. coordinating body (if many parties))	Lit review, theoretical analysis & practice based
	Formal compliance with sustainability principles (in the national and/or sectoral SD strategies/white papers/etc.)	Lit review based
	Possibility to incorporate SEA follow-up results in revised/updated/new strategies as per a planning cycle/tradition – Provisions for adaptive planning and SEA follow-up system	Theoretical analysis based
	Integration of SEA follow-up with existing monitoring systems	Theoretical analysis & lit review based
Structural dimension	Statement of strategy ownership and status of proponents (partnership, contractors, etc.)	Lit review, practice & theor.analysis based
	Specified timing & position of SEA follow-up in planning cycle and decision/policy-making processes ➤ in relation to SEA and its strategy formulation and delivery processes ➤ in the broader context of upper, lower, or horizontal strategies & their EAs	Lit review, theoretical analysis & practice based
	Acceptance of roles and responsibilities and accountability in SEA follow-up by relevant stakeholders	Theoretical analysis & practice based
	Transparency for SEA follow-up delivery activities	Theoretical analysis,
	Commitment (motivation) by responsible stakeholders and acknowledgement of threats for non-implementation of SEA follow-up	lit review & practice based
	Competence (managerial) & adequate resources for SEA follow-up	Lit review based

⁷³ The proposed SEA follow-up framework and its variables are not claimed to be ‘ideal’. Rather it is a framework, which allows for adjustments as per the current/local trends in policy-making, planning and SEA. Also, it provides a ground for the empirical evidence and is open to uptake from it.

	Variable	Source of deriving
	Networking for credibility and mutual trust	Practice based
	Provisions (possibilities) for capacity-building (education, training)	Lit review & practice based
Process dimension	Statement of SEA follow-up rationales and goals for different decision-makers and planning tiers (also in relation to SD principles)	Theor. analysis, lit review & practice based
	Screening at the earliest stages of SEA and strategy development	
	Scoping at the earliest stages of SEA and strategy development	
	Formulation and implementation of SEA follow-up steps: types, design, methods, coherence & roles: ➤ Monitoring ➤ Evaluation ➤ Management ➤ Communication	Theoretical analysis, lit review & practice based
	Integration of SEA follow-up with the PPP implementation e.g., performance monitoring of its strategy	
	Consistency of SEA follow-up targets and standards with those of upper, low, or horizontal strategies and policies (Explicitness of tiers)	Theoretical analysis based
	Assurance of open stakeholder cooperation and coordination including consensus-building on SEA follow-up method/process	Theoretical analysis & lit review based
	Adaptability of a PPP and SEA follow-up to ensure: ➤ feedback from subsequent decision-making to the initial PPP within the SEA follow-up scheme (organisational anchoring). ➤ provisions for response measures to (non)deliberate situations or external changes ➤ revision of SEA follow-up if the contents of a PPP changes ➤ revision of a PPP if SEA follow-up reveals unexpected impacts	Theoretical analysis, lit review & practice based

It is important to note, that the iterative PhD research process suggested making several principal amendments to the evaluative and explanatory framework (Figure 3:2). The first version of the framework was tested over the Pilot Case Study (Point 3.3.3.1). As a result, certain variables were changed and/or removed, whilst others were added⁷⁴ and the second ‘empirics-based’ version of the framework was produced. The reasons for refining, changing or removing variables from the initial set varied: some variables were too general, too specific, too vague or too theoretical; some were unaccepted by the practitioners as excessive, too costly or ‘offensive’ (Table 3-3). Variables were altered in a way that they were split up or merged into similar theme(s)/variable(s) and transferred to the final framework, so that their sense was maintained. In parallel, the evaluative and explanatory framework was revisited and analysed to allow for accommodating the facets of the Pilot case-related consultations and correspondence with SEA professionals as well as new inputs from the literature. All this led to cutting down the number of variables from the initial 48 to the final 33 ones, to their clearer division and formulation, better understanding of the on-ground SEA follow-up issues and

⁷⁴ Those changes to the SEA follow-up framework have occurred in addition to its country- specific adaptation (i.e. to the UK condition for the Pilot Case Study).

higher acceptance and understanding of the research by the stakeholders of the further case studies. Ultimately, the final SEA follow-up framework was proposed for further testing, analysis and evaluation, including the revisit of the Pilot Case (Table 3-2).

Table 3-3 Variables that underwent changes for the purpose of the final framework

Initial variables	Changes to them and reasons for that
- Acknowledgment of how PPP considers non-intended/emergent strategies in SEA follow-up - Arrangements to ensure consideration of emergent strategies' effects in SEA follow-up should be mentioned (responsible stakeholders, emergent funding, etc.)	<i>Revised</i> Needed more preciseness and thus were reformulated and merged in "Adaptability of a PPP and SEA follow-up"
Cross-relation of conformance of the final planning results with the performance of a PPP for creating conditions for future development.	<i>Removed</i> <i>Was considered unclear by the academics and practitioners</i>
Acknowledgment of constraints and limitations to SEA follow-up connected to decision and policy making process.	<i>Removed</i> Was usually mentioned in PPP and SEA documents and/or considered in delivery and follow-up schemes.
Consideration of both summative and formative evaluation elements in SEMP/SEAP (depending on the PPP implementation periods and whether they are planned to be replaced by other PPP).	<i>Removed; its sense maintained.</i> It was argued that formulation is confusing and that in practice SEMP/SEAP hardly ever exist. Thus, evaluation elements of follow-up (not meaning the activity) were considered in "Incorporating the results...", "Statement of SEA follow-up goals and rationales...", "providing feedback..." & "...positioning SEA follow-up..."
Sensitivity to the cultural or ethnic context in which SEA follow-up is be applied – based on practitioner's experience, knowledge or training	<i>Removed; its sense maintained.</i> Implementers considered this criterion 'offensive' as they were part of the cultural and ethnic context. This variable is partially addressed in the context dimension. However, they could easily speak about "competence", which therefore was added to "Adequate resources" in the framework.
Provisions for the SEA follow-up actions to be responsive to long-term (implementation) and short-term environmental changes (adaptive management).	<i>Revised.</i> Was argued to be vague. Also, analytical discourse and case studies revealed the existence of two types of adaptive management, an operational and strategic. Besides, the adaptiveness of the planning system may be influential. Therefore, this variable was revised, split up and added to "Adaptability of a PPP and SEA follow-up" and "Provisions for adaptive planning and SEA follow-up system".
Provision of support and supervision for the implementation of SEA follow-up by the authorities	<i>Removed.</i> Was covered by "formal provisions for distribution of responsibilities", "cooperation", and "acceptance of roles"
Ensurance by the regulators that SEA follow-up is carried out in accordance with regulatory frameworks/standards	<i>Removed.</i> Was covered by such variables as "...accountability" & "consistency".
Familiarity of the practitioners with the key follow-up activities in SEA, which should be foreseen in the follow-up program	<i>Removed.</i> Unclear. No universally agreed "key follow-up activities". Practitioners agree on those based on the particularities of cases and thus this is covered in "competence", "commitment" and "accountability"
Communication of the results of follow-up actions or programs directly to all concerned parties/stakeholders (a tentative plan when and where should be proposed in SEA/SEMP)	<i>Removed; its sense maintained.</i> Was covered by such variables as "methods for communication", "cooperation", "division of responsibilities", "acceptance of roles", and "networks".
Use, where possible (to reduce costs), of the existing monitoring and management schemes	<i>Removed; its sense maintained.</i> Based on analytical discourse and cases this was changed to

Initial variables	Changes to them and <i>reasons for that</i>
(e.g., (S)EMS or state of the environment reporting) and of simple but effective techniques (e.g., observation and inspection)	“Integration of SEA follow-up with implementation...” and “integration with existing monitoring systems”. It was also covered in the “methods” variable.
- Appreciation of SEA follow-up in developmental budgets for PPP and SEA - Evaluation of SEA follow-up actions against the constraints of time, resources, geography, the level and nature of development & vulnerability, and the attitudes and desires of the affected communities and property owners. - Feasibility of SEA follow-up in the context of the local environment, i.e. if a PPP is location-specific, so must be its SEA follow-up program.	<i>Removed; their sense maintained.</i> Were considered too specific and tautological. These three variables were basically merged into one “adequate resources/competences” and also covered by another one, i.e. “screening” and “scoping”.
- Consideration of follow-up for all significant adverse environmental effects from strategy - Consideration of mitigation measures in SEA follow-up actions - Provisions for defining, quantifying or evaluating the significance of residual effects in SEA follow-up.	<i>Removed; their sense maintained.</i> Were considered too specific and thus were generalised under “screening”, “scoping” and “formulation and implementation of SEA follow-up steps”.
Conformance of SEA follow-up ‘tracks’ with the tasks of follow-up and the PPP’s objectives including those at different planning levels	<i>Removed.</i> Was unclear, as ‘Tracks’ for follow-up, proposed in the professional literature, were unknown to practitioners.

Step 3 - synthesising and closing the loop: from empirics to theory- took place after the empirical phase in order to i) synthesise theoretical and empirical findings in a wider research context, ii) explore/explain the relationships among the variables with reference to the SEA debate and other theories, iii) provide key messages for advancing SEA follow-up and iv) draw recommendations for a better SEA follow-up application (Tasks 3c & 3d, [Table 1-1](#)). The approaches and methods for this step are presented in the data analysis section [3.4](#).

3.3.3 Empirical phase

The empirical phase of the research was conducted to achieve Objective 3: to test and validate the SEA follow-up framework and draw recommendations ([Table 1-1](#)). It consists of two parts: case studies with a Pilot study coming first and an opinion survey in the form of electronic questionnaire aimed at a wide range of SEA users.

3.3.3.1 Selection of case studies and related issues

The case studies were necessary to test the framework and obtain an in-depth understanding of SEA follow-up in practice. The classical approaches to case selection, i.e. sampling based on extreme, typical, unique, ideal or negative case (e.g., Patton 1990) was not fully appropriate, since no (full-scale) evaluation of SEA follow-up has been done before and each case is exceptional as such. Thus, the choice of cases followed a “replication logic”, meaning that they were believed to have positive outcomes, e.g., the existence of SEA follow-up

elements, beforehand (see Yin 2003,110). The initial case search criteria were simple: i) there should be a strategy that would classify as a plan or program; ii) it should have undergone strategic (para-)EA; iii) the preparation of both a plan or program and its EA should have been completed; and iv) EA should have included some follow-up.

The long search for case studies started in May 2006, simultaneously with Objective 1 (see Research Schedule, [Appendix C](#)), during the International Association of Impact Assessment (IAIA) conference in Stavanger, Norway. Some personal contacts were established and a number of professionals in the SEA field were informally questioned about whether they were aware of appropriate strategies/SEAs for this research. Some cases were determined during the preparatory and theoretical phases, i.e. literature review, others through electronic, phone or Skype communication and consultations with SEA practitioners and researchers from the state and public institutions concerning the existence and availability of case studies.

Out of 35 people contacted, seven people stated that they knew some appropriate cases to study, however three of them mentioned the local language as a problem ([Table 3-4](#), also [Point 3.6](#)). Alongside inquiring about the cases, several professors at different universities were asked whether they were willing to act as external supervisors. Three of the addressed expressed their willingness to supervise the work. Later, one of them, Prof. Thomas Fischer (University of Liverpool, UK) was cordially invited by the Doctoral Committee of the author, CEU, to become an official external supervisor. The external supervisor commented on the PhD Thesis Prospectus, the defence of which took place in December 2006. Additionally, the Prospectus was commented upon by four external readers and experts in the SEA and EIA follow-up fields: Dr. Bram Noble (Canada, later an advisor to the research), Prof. Maria Partidario (Portugal), Prof. Jos Arts (The Netherlands), and Dr. Robert Goodland (USA).

Table 3-4 People contacted, cases and problems, possibility of supervision (2006)

#	People contacted via e-mail, live conversation, etc. (organisation, country)	Potential cases (yes/no or no response)	Problems with cases	Willing to supervise/ host
1.	Jos Arts (Ministry of Transport, the Netherlands)	Yes	Language	Maybe/yes
2.	Maria Partidario (New University of Lisbon, Portugal)	Maybe	Language	-
3.	Kevin Hanna (Wilfrid Laurier University, Canada)	No	-	-/No
4.	Levett-Therivel (University of Oxford Brookes; Consult, UK)	No response	-	-
5.	Susan Owens (University of Cambridge, UK)	On vacation/No	-	-
6.	Institute of Environmental Management and Assessment, UK	No response	-	-
7.	Thomas Fischer (University of Liverpool, UK)	Yes	-	Yes/Yes
8.	Morrison-Saunders (Murdoch University, Australia)	Yes	Unclear	Maybe/-
9.	Elvis Au (SAR Government, Hong Kong, China)	Maybe	Unclear	No
10.	Dr. Bram Noble (University of Saskatchewan, Canada)	Yes	Unclear	Yes/Yes
11.	Viktor Raykin (Consultancy AATA International, Inc., USA)	No response	-	-

#	People contacted via e-mail, live conversation, etc. (organisation, country)	Potential cases (yes/no or no response)	Problems with cases	Willing to supervise/ host
12.	Austin Robert (University of Toronto, Canada)	No response	-	-
13.	Peter Sylvester (Canadian EA Agency, Canada)	-	-	-
14.	Tammy Paul (Canadian EA Agency, Canada)	Maybe	Terminology	-
15.	Annandale (Murdoch University, Australia)	On vacation	-	-
16.	Ray Clark (The Clark Group Consultancy, USA)	No response	-	-
17.	Gene Owens (“Eco-Share Group” Consultancy, USA)	No	-	-
18.	Vakhtang Gvakharia (“Gamma” Ltd. Consultancy, Georgia)	No	-	-
19.	Jill Baker (Environment Canada, Canada)	No (maybe)	Limited access	-
20.	Olivia Bina (New University of Lisbon, Portugal)	Yes	Language	-
21.	Rob Gibson (University of Waterloo, Canada)	No response	-	-
22.	Kety Gudjaridze (NGO Green Alternative, Georgia)	Maybe	Unclear	-
23.	Lia Todua (Center for Strategic Research & Development, Georgia)	No	-	-
24.	Lars Emmelin (Blekinge Institute of Technology, Sweden)	No	-	-
25.	Juri Dusik (Czech Technical University, Czech Republic)	No	-	-
26.	Ana Rukhadze (Head of Biodiversity Department, Ministry of Environment, Georgia)	Maybe	Unclear	-
27.	Rati Japaridze (ICZMP, WB, Georgia)	No response	-	-
28.	Nune Darbinyan (NGO “Eco-Globe”, Armenia)	No	-	-/No
29.	Sona Ayvazyan (Center for Regional Development/ Transparency International, Armenia)	Yes	Language; Access to documents	-/No
30.	Hrach Ashikyan (NGO “Eco-Globe”, Armenia)	No response	-	-
31.	Monika Fundingsland-Tetlow (Transport Research Library, UK)	Maybe	-	-
32.	Ronald Bass (Jones & Stokes planner/attorney, Extension University of California, USA)	Yes	Unclear	-
33.	Mel Willis (visiting lecturer at University of California, Santa Barbara, Private Consultant, USA)	No response	-	-
34.	Robert Goodland (Private Consultant, USA)	Maybe	Unclear	-
35.	Emma James (Consultancy “Environ”, UK)	No	-	-

During the above described process, 11 potentially *researchable* cases were identified. Their inventory as of December 2006 is given in [Table 3-5](#) alongside the countries of their location and supervising institutions. To take account of uncertainty in case research and to allow for more flexibility some cases have been chosen as alternatives for the preferred options, e.g., cases in Canada could be substituted by cases in Australia. [Table 3-5](#) also shows how certain cases had to be changed to others or abandoned (right column), gives the snap-shot for the moment when fieldwork was completed, i.e. December 2007, and demonstrates the progression with the case examination over 2006-2007. The need for a flexible approach to the PhD project is obvious, as even potentially researchable cases had to be changed *in situ*.

Table 3-5 Inventory of cases and the evolution of case examination over 2006-2007

#	Cases selected (tentative)	Country	Supervising or hosting organisation	Comments as of 2006-after the theoretical step 1	Actual situation as of December 31, 2007-the theoretical step 2 and empirical stage
1.	Merseyside Integrated Local Transport Plan	UK	- The University of Liverpool - MerseyTravel Headquarter in Liverpool	Pilot case study	Went as planned
2.	Local Transport Plan of Lancashire	UK	-Lancashire County Council, Preston & Preston City Council - The University of Liverpool	To re-test the amended framework	Went with modifications; two more cases became available: Local Transport Plans of Blackpoll & Blackburn with Darwen
3.	The Great Sand Hills Land Use Strategy	Canada	The University of Saskatchewan - Later: Several branches of the Ministry of Environment, SK		Rejected. Although it dated 2005, no implementation was underway. Instead, the Pasquia-Porcupine Forest Management Plan was chosen.
4.	National Capital Commission, Programming initiative	Canada	The University of Saskatchewan - Later: The National Capital Commission, ON		Changed to the upper strategy, the National Capital Core Area Sector Plan and was treated as its follow-up
5.	Plan of Rural Land Use for Industrial Purposes	Australia	Murdoch University	Alternative to Canada	Abandoned. No need for back-up Plan B.
6.	Yerevan City Master Plan	Armenia	-Center for Regional Development Transparency International; -NGO "Eco-Globe"		Abandoned. A private trip to Yerevan revealed the problems with strategy delivery, access to data & communication
7.	Humber Estuary Flood Defence Strategy (2005)	UK	-Environmental Agency - Black & Veatch Consulting Ltd	Alternative to the Lancashire strategy	Abandoned. Lancashire case was considered more important to test the amended framework and get a general picture of SEA follow-up in transport
8.	Kolkheti National Park Management Plan (Integrated Coastal Zone Management, Project of the WB)	Georgia	-"Center for Strategic Research & Development" -NGO"Green Alternative" - Min. of Environment -ICZMP office of WB	Decide during a summer trip (costs, techn. support, permits, etc.)	Abandoned due to the unclear situation with the strategy realisation and due to the problems with access to materials.
9.	Integrated Regional Energy Plan for Odessa Oblast (or SD Plan for Ukraine's Pulp and Paper Sector)	Ukraine	-International Finance Corporation, Kiev Office	Alternative to Armenia	Abandoned. As the Armenian case was abandoned, there was no need for back-up Plan B.
10.	Local development plan, Berlin	Germany	-Technical University of Berlin, Germany	Lower level strategy	Selected. Then rejected, as the field trip showed it appeared to be a project, rather than a spatial plan as it was expected.
11.	Regional Operational Program of Hungary	Hungary	Regional Environmental Center	Alternative to Georgia	Abandoned. As the Georgian case was abandoned, there was no need for back-up Plan B, besides communication and access to data was a problem.

The cases chosen from the inventory were exemplary, rather than representative. Nonetheless, they had to reflect a variety of factors, i.e. i) a coverage of different planning initiatives, ii) a

coverage of different administrative levels, iii) the existence of SEAs with follow-up elements, iv) ongoing implementation of strategies, v) the ‘age’ of initiatives (at least 2 years old), vi) preferably the countries with the established SEA systems, e.g., mostly, the developed ones such as the UK, Canada, the Netherlands, Germany, Australia, and vii) different sectoral profiles or different types of locations or different jurisdictions if cases were in one country or belong to the same sector. Table 3-6 explains and summarises the choice.

Table 3-6 Characteristics of case studies that influenced their selection

Main strategy (the order of a strategy in the planning cycle)/selection factors	Planning initiative type	Planning level	Existence of (S)EA	Existence of (S)EA follow-up elements	Maturity/ year of preparation	Established SEA system	Sector & location
Pilot case -Merseyside transport strategy, UK (tests the framework; is considered ‘good’ SEA case in the literature)	Plan/program	Sub-regional	Yes	Yes	2006-2011	Yes	Transport/metropolitan area
Lancashire transport strategies, UK: - Lancashire Country (has a similar to Merseyside case 3-tier planning structure- national-council-district levels and, thus, is suitable to test the emended framework) - Blackpool Unitary District - Blackburn with Darwen Unitary District (two unitary districts have a 2-tier planning system: national-district levels; Blackburn is exceptional as it has in-house SEA & planning; 3 cases in Lancashire allowed looking into inter- & intra-organisational connections and networks for follow-up while testing the framework)	Plan/program	-Sub-regional -local -local	Yes	Yes	2006-2011	Yes	Transport: -urban-rural -urban-coastal -urban, deprived industrial
Forest Management Plan, Saskatchewan, Canada	Program	Provincial/regional	Yes	Yes	1998-2018	Yes	Spatial/land use-rural (forestry)
National Capital Core Area Sector Plan, Canada	Plan	National/federal	Yes	Yes	1998/2000/2005-2025	Yes	Spatial-land use-urban

3.3.3.2 Pilot Case Study: Preparing for Field trip 1, UK (& partially for Field trip 2)

A Pilot Study was necessary to test the initial SEA follow-up framework and prepositions, refine the empirical part of the research design and improve it for the following cases. In addition to the ‘replication’ selection logic and criteria, the strategy for choosing a Pilot Case was close to that of a ‘paradigmatic case’ in that it had a prototypical value for the research, could set the standards for further cases and could be dictated by the scientific intuition of a scholar as well as other considerations (e.g., Seale *et al.* 2003). The case study of the

Merseyside Local Transport Plan, West North England was chosen as a Pilot case⁷⁵ based on the above factors and because it had a previous quite successful experience with Health Impact Assessment (HIA) and plan implementation and hence could serve as the benchmark for further case analyses. Several contacts with the Liverpool municipalities and responsible bodies were successfully established. Most contacted people expressed their willingness to support this research and to provide access to the documentation for all UK case studies (contacts for cases 2-4 in Lancashire, Blackpool and Blackburn with Darwen were partially clarified during the Pilot trip to Liverpool). Nine interviews were conducted during the first UK field trip in February 2007, supplemented by informal consultations and follow-up correspondence with the interviewees and other relevant people ([Appendix D](#)). The data collection and interview procedures were similar for all cases and are explained below.

3.3.3.3 *Data collection procedures*

Case research schedules with timelines, tasks and objectives were prepared in advance for all cases (see an example for two Canadian cases in [Appendix E](#)). Prior to and during each case study and each of many field trips, data collection and literature review of the available case materials were conducted. However, as practice showed the site research had to cope with issues that could not have been considered upfront, e.g., a change of cases in Canada.

3.3.3.4 *Interviews and ethical considerations*

In order to attain the objectives of the research semi-structured interviews, both face-to-face⁷⁶ and telephone, and electronic correspondence with SEA stakeholders for each case were conducted. The preparatory stage telephone and email correspondence helped determine the circles of the main actors/organisations/authorities and responsible persons for interviewing. Later, a snow-ball principle was used, when one interviewee recommended talking with other competent people. In total 39 formal interviews and around 20 informal consultations were conducted (for the detailed lists of the affiliations of the interviewees see [Appendix D](#)).

To secure the *informed consent* (e.g., Trochim 2006b), *the interview procedure* for both vis-à-vis and phone interviews included:

- Explaining motives and intentions of the researcher and aims of the research;

⁷⁵ The study was financed by CEU and supported by the Department of Civil Design, University of Liverpool, UK, which provided the researcher with a working space, logistical assistance, instruction and some contacts.

⁷⁶ Most interviews were conducted face-to-face; only few interviews involved two people at time. Several interviews took place in the passive presence of other members of the same stakeholder group.

- Familiarising interviewees with the schedule and structure of the interview;
- Tape-recording interviews and taking field notes to subsequently allow for coding; and
- Recording and systemising interview materials and results.

To comply with the principles of *confidentiality and anonymity* (e.g., Trochim 2006b), the respondents were asked if they would like to keep anonymity and whether they would like to be sent the drafts of those parts of the research, in which they participated for comments. The majority of the interviewees opted for not being cited in the thesis; nonetheless, they allowed using their statements. Therefore, to ensure some degree of confidentiality to case studies participants and avoid putting them at risk, the research avoids attaching identities to the statements made throughout the work. When a phrase of an interviewee is cited in the text, it is followed by a code assigned to the interviewee ([Appendix D](#)).

The *interview questions* were made up on the ground of a) the variables proposed for the evaluative and explanatory SEA follow-up framework and b) the material collected and studied beforehand on each case to tailor questions to the local regulations, planning system, duties of an interviewee, if possible. 34 non-case specific interview questions are given in [Appendix F](#).

The *time of the interviewees* was respected. They were asked beforehand about their time availability. In case it was limited, the abridged version of 23 questions was used. However, as a rule by the end of the interview the interviewees became involved in the conversation and answered all questions.

The *interview design* was mixed in order to provide for consistency, both general and detailed information gathering and two-way communication/discussion. It was arranged as follows:

- the first few questions were open-ended with the intention of putting the interviewee at ease and at the same time revealing the scope of responsibility/knowledge of the interviewee;
- the core part of the interview consisted of both open-ended and “semi-structured” questions based on the following additional principles a) questions should refer to the duties and responsibilities of a person and b) answers could be evaluated against established parameters, and c) questions should be able to trigger a more specific discussion.

3.3.3.5 *Electronic survey*

The aim of the electronic opinion survey was to examine the current state of SEA follow-up practice in order to supplement the related theoretical findings (Task 1b) and validate some

elements of the SEA follow-up framework through synthesis (Task 3c), thereby contributing to Task 3d, i.e. to develop recommendations for improving SEA follow-up.

The survey was conducted in two rounds. First, the questionnaire, created with the specialised survey-designing site-www.surveymonkey.com, was disseminated in April 2008 through the monthly newsletter's announcement of the IAIA, the most extensive international network of EA practitioners and researchers. This way the survey could reach the widest population of people dealing with SEA/SA/SIA at planning authorities, public and private organisations, professional consultancies, NGOs, research institutes, etc. While the total number of the IAIA members was around 1400 people, the exact population size for the survey is unknown as only those who have SEA experience were asked to fill out the survey (maybe ca. 300-350 people). The details of the announcement and the e-questionnaire with the cover letter are presented in [Appendix G](#). This first round occurred from 21 April to 10 May 2008 and received 51 responses with a completion rate of 64%. For the second round, the same questionnaire was e-mailed by the author to the people involved in SEA to the best knowledge of the author and to those members from the IAIA 2007 members' database who indicated SEA as their work/personal interest in the profiles⁷⁷. The filling-out period was from 13 to 30 June.

As both rounds served to the same goal and the second round was intended to supplement the first one, all responses were counted and analysed together. The final survey *completion rate* was ca. 64%, i.e. 42 out of 67 people who started filling out the survey completed it (thus the approximate sample size is 17-20%). This meant that not every question was answered by all the respondents, and resulted in the varying total number of answers, e.g., the first two questions were answered by 67 people, the next four questions were answered by 44 people and the last ones were answered by 42 people. Several practitioners wrote to the author saying that they could not fill out the survey as they were not involved in full scale SEAs/SAs. Meanwhile, some others supplied additional data regarding a particular SEA follow-up.

The e-questionnaire was formulated taking into consideration some theoretical findings, pilot interviews and primary empirical findings and consisted of nine questions. Its design was mixed and included open-ended, semi-structured multiple- and single-choice questions to gather opinions on (see also Appendix G):

⁷⁷ The April survey announcement was sent out to the members of the IAIA as of 2008. Meanwhile, most memberships are subject to annual renewals, which results in a high membership rotation, despite the growing overall number of the members. Thus, the databases of 2008 and 2007 were compared to identify those SEA practitioners/researchers whose membership expired by 2008.

- the rate of SEA follow-up in practice in order to abstract from the theoretical speculations about how often SEA follow-up is planned and implemented in reality;
- the geographical spread of SEA follow-up cases in order to get a wider coverage picture of SEA follow-up (restricted to one country by person)⁷⁸;
- the screening process for SEA follow-up in order to validate the findings about the design of SEA follow-up and get the state-of-the-art picture;
- the extent to which the specified activities and elements of SEA follow-up were envisaged in order to get the state-of-the-art picture and validate/synthesise with the cross-case analysis findings about the design of SEA follow-up;
- the extent to which the envisioned activities and elements of SEA follow-up were implemented in order to get the state-of-the-art picture and validate/synthesise with the cross-case analysis findings about the implementation of SEA follow-up;
- the significance of obstacles to SEA follow-up implementation graded against a certain scale to get the state-of-the-art picture, validate/synthesise with the cross-case analysis' and theoretical findings and facilitate the development of recommendations;
- the significance of SEA follow-up benefits graded against a certain scale in order to get the state-of-the-art picture, validate/synthesise with the cross-case analysis' and theoretical findings about the potential benefits of SEA follow-up;
- the relationship between the current state of theory and practice of SEA follow-up in order to have the state-of-the-art picture and be able to see the evolution lines of SEA follow-up theory and practice and propose directions for future research.

To analyse the e-questionnaire data, descriptive statistical methods in SPSS and Excel were basically used (see Chapter 5 for details). Bars, pies, charts and tables were usual displays for the analysis (for analysis see Chapter 5 & for synthesis Chapter 8).

3.4 Analytical hierarchy for data analysis

For the qualitative analysis of SEA follow-up case data an 'analytical hierarchy' (Ritchie & Lewis 2003,219-226) with three forms of activities was adjusted (Figure 3:3).

⁷⁸ The picture might be incomplete as the respondents are not from all countries of the Globe. However, as the IAIA is the biggest professional organisation, it was the best way to address as many relevant people as possible.

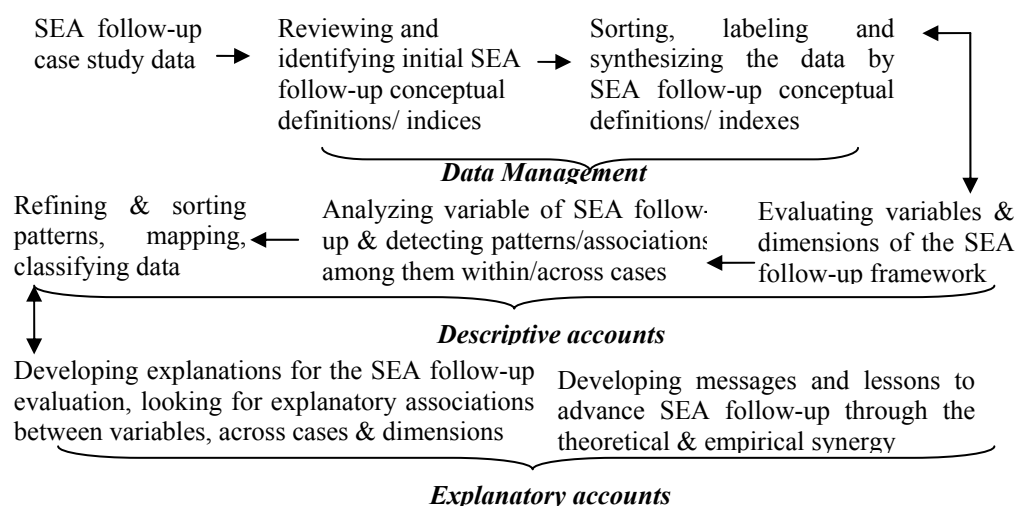


Figure 3:3 Data analysis hierarchy and processes

The documentary data for SEA follow-up cases, e.g., case current and background materials, related documentation, field notes, transcripts, country-specific literature, were extensive. To *manage the data*, first, the collected SEA follow-up materials were reviewed, edited, sorted, segmented or synthesised, coded and thereby reduced to a manageable extent (see e.g., Miles & Huberman 1984; Punch 1998; Ritchie & Lewis 2003). These steps were done iteratively and continuously for all cases. The used indices were in part defined simultaneously with formulating the conceptual definitions; partly, they emerged through iterative data reviews and interviews/consultations. They are summarised in Table 3-7 as per the final SEA follow-up framework. It was decided not to use computer-based software for data analysis, such as Atlas, as the access to it was obtained by the author after all fieldwork was completed and because of the limitations of the software to support different formats of documents.

Table 3-7 Indices used for the analysis of SEA follow-up case data

Variable	Variable's abridged name/index
Context dimension	CD
Existing planning and policy-making practice and the SEA system	Planning tradition & SEA
➤ Planning type and policy framework for SEA/follow-up	➤ PLTYPE
➤ Political commitment to SEA/follow-up and influence	➤ POL-COM
➤ Socio-economic preconditions for SEA/follow-up	➤ SOC-ECON
Formal provisions for SEA and follow-up	Formal provisions
➤ Legislation and regulations (direct/indirect)	➤ LEG
➤ Manuals, guidelines and guidance for SEA/SA/SIA	➤ GUIDE
➤ Enforcement and compliance mechanisms	➤ ENFR
➤ Formal distribution of responsibilities	➤ FOR-RESP
Formal compliance with sustainability principles	Compliance with SD principles/SDP
Possibility to incorporate SEA follow-up results in revised/updated/new strategies as per a planning cycle incl. provisions for adaptive planning	Incorporation of follow-up in planning/INCOR-AD
Integration of SEA follow-up with existing monitoring systems	External integration /EXT-INTGR
Structural dimension	SD
Statement of strategy ownership and status of proponents	Ownership/OWN
Specified timing & position of SEA follow-up in planning cycle and	Clear timing and position/

Variable	Variable's abridged name/index
decision/policy-making processes <ul style="list-style-type: none"> ➤ in relation to SEA and its strategy formulation & delivery processes ➤ in the broader context of upper, lower, or horizontal strategies & their EAs 	<ul style="list-style-type: none"> ➤ TIME/POS ➤ SPACE/POS
Acceptance of roles and responsibilities and accountability in SEA follow-up by relevant stakeholders	Acceptance of roles & accountability/ ROLE-ACC
Transparency for SEA follow-up delivery activities	Transparent delivery/TRANS
Commitment (motivation) by responsible stakeholders and acknowledgement of threats for non-implementation of SEA follow-up	Commitment and non-compliance/COMT-NON
Competence (managerial) and adequate resources for SEA follow-up mentioned in PPP/SEA budgets	Competence & resources/ COMP-RES
Networking for credibility and mutual trust	Networking /NETW
Provisions and possibilities for capacity-building (education, training)	Capacity-building/CAPB
Process dimension	PD
Statement of SEA follow-up rationales and goals for different decision-makers and planning tiers	Clear goals/GOAL
Screening (methods) at the earliest stages of SEA & strategy development	Early screening/SCR
Scoping (methods) at the earliest stages of SEA& strategy development	Early scoping /SCP
Formulation and implementation of SEA follow-up steps: types, design, methods, coherence and roles: <ul style="list-style-type: none"> ➤ Monitoring ➤ Evaluation ➤ Management ➤ Communication 	SEA follow-up methods <ul style="list-style-type: none"> ➤ MON ➤ EVAL ➤ MANGT ➤ COMM
Integration of SEA follow-up with the implementation e.g., performance monitoring of its strategy	Interior integration /IN-INTGR
Consistency of SEA follow-up targets and standards with those of upper, low, or horizontal strategies and policies	Horizontal, vertical & diagonal consistency/CONS
Assurance of open stakeholder cooperation and coordination including consensus building on SEA follow-up method/process	Open cooperation & coordination/COO
Adaptability of a PPP and SEA follow-up to ensure: <ul style="list-style-type: none"> ➤ feedback from subsequent decision-making to the initial PPP within the SEA follow-up scheme (organisational anchoring). ➤ Provisions for response measures to (non)deliberate situations or external changes ➤ revision of SEA follow-up if the contents of a PPP changes ➤ revision of a PPP if SEA follow-up reveals unexpected impacts 	Adaptability/ADAP <ul style="list-style-type: none"> ➤ FEEDB ➤ REACT ➤ REV-SEAF ➤ REV-PPP

Then, for the *descriptive analysis*, the ordered data were used to describe the indices/variables of SEA follow-up for individual cases, look for association between them, map relation graphs, and identify the issues and patterns. An important part of the descriptive analysis was the graded evaluation of the variables for all cases. The grading system included grades from A to F to judge whether a particular variable performs well or is existent/evident in practice; inapplicable or unclear options were also considered (Table 3-8).

A following guidance was applied to make decisions about the extent of the performance and existence of the variables. In order for a variable to be considered good performing/fully evident (A), it required clear and substantiated evidence from both multiple interviewees and the document reviews. A variable considered to be well-performing/evident to a large extent (B)

was mostly supported by documents and mentioned by multiple interviewees. A variable was viewed as satisfactorily performing/evident to a lesser extent (C) if the main evidence was documented or mentioned by some interviewees, but often differently interpreted by them, or if a variable was mentioned by many interviewees, but only marginally revealed in documents.

Table 3-8 Grading scale for the SEA follow-up framework variables

Grade	Meaning
A	Good performance in general with no weaknesses or omissions/Fully evident or existent
B	Good performance with only minor omissions or weaknesses/Evident or existent to a large extent
C	Satisfactory performance with some omissions or weaknesses/Evident or existent to a lesser extent
D	Unsatisfactory performance despite some elements performing well/Some elements are evident or existent
E	Poor performance with major omissions or weaknesses which would prevent SEA follow-up proceeding and require major work to complete/Nearly no elements are evident or existent
F	Not performed/Does not exist or is not evident
N/A	Not applicable or irrelevant
?	Unclear

Variables validated through only a single source, either interviews or document reviews, or where there was evidence but some uncertainty and/or contradictions existed amongst interviewees were considered unsatisfactorily performing (D). A variable was poorly performing if it was just attempted according to the documents or interviewees (E). If a variable could not be identified through either the interviews or documents, it was considered as not performed/absent (F). Not applicable and unclear implied a direct meaning (N/A & ?). However, in some cases flexibility in judgements was allowed based on the character of a variable and author's intuition, e.g., when some variables could not be captured and well-documented (e.g., informal links), when it was felt that some interviewees were less reliable or were driven by a hidden agenda. Those factors were considered in the given grades to the extent possible. Also, it was tried to avoid using 'unclear' grades as far as possible by conducting additional research/consultations, since the author was strongly confident that *the field research was precisely a method to clarify the unclear, rather than to simply identify it.*

To proceed from the descriptive towards explanatory analysis and to allow for data interpretability during the cross-case analysis a simple computing methods were used. Using quantitative methods to better understand the qualitative data is advised in the literature on qualitative research methods. For instance, according to Miles and Huberman (1994,215) "...numbers help. They make it easier to manipulate the data in a case-ordered matrix..." when one seeks to explain analytical findings across the cases. This research applied a technique of averaged weighting to analyse the performance of each SEA follow-up case

against the dimensions (i.e. process, structure and context). It included ranking the received grades in a dimension according to the values assigned to the grades (Table 3-9). High values for better grades implied a ‘better’ performance/more evident existence with reference to a criterion. To begin the calculation, two assumptions were made. First, all criteria within one dimension were assumed to have the same ‘default score’. The reason for this was that the variables in the same dimension were considered equally important to the performance of SEA follow-up⁷⁹. Second, slightly different ‘default scores’ were given to the dimensions based on the consideration of importance and also on the assumption that all variables are of an equal weight. Namely, ‘context’, ‘process’, and ‘structure’ were equated to 0.3, 0.4, and 0.3 respectively⁸⁰. To illustrate the grading process, an example of Case X is presented step-by-step. First, the grades are given to all variables in each dimension and the same grades are summed up within the dimensions. E.g., for ‘context’ there are 3A grades, 4B grades and 3C grades and the sum of weights multiplied by values is 40 (i.e. $3*5 + 4*4 + 3*3$) (column 3, Table 3-9). Second, to get the averaged weighted value for a dimension, the received sums are divided by the number of variables with N/A not being counted.

Table 3-9 Calculating averaged grades for variables weighed against dimensions

Grade	Value	Case X					
		Context (10 variables)		Process (14 variables)		Structural (9 variables)	
1	2	3		4		5	
		#Grades	Total Values	#Grades (design/implementation)	Total Values (design/implementation)	#Grades (design/implementation)	Total Values (design/implementation)
A	5	3 As	15	2 As/3 As	10/15	2 As/2 As	10/10
B	4	4 Bs	16	3 Bs/3 Bs	12/12	2 Bs/2 Bs	8/8
C	3	3 C	9	2 N/As/2 N/As	-	3 Cs/5 Cs	9/15
D	2			3 Cs/3 Cs	9/9		
E	1			2 D	4		
F	0			F/F	0/0		
N/A	-	$\Sigma=$	40	$\Sigma=$	34/40	$\Sigma=$	27/33
?	-	Av.Value	4	Av.Value	3.4/3.33	Av.Value	3.86/3.67
		Av.Grade	B	Av.Grade	C	Av.Grade	B
		Norm.Value	$4*0.3=1.2$	Norm.Value	$(3.4+3.33)/2*0.4=1.35$	Norm.Value	$(3.86+3.67)/2*0.3=1.3$
Final Value = $1.2+1.35+1.3=3.85$; Final Grade is B							

It should be noted that variables for the other two dimensions are graded for both design and implementation/state and, therefore, there are two sets of numbers, the sums of which are

⁷⁹ This assumption was discussed with several SEA professionals from the perspective of justifiability for SEA follow-up and with several members of Academy from the perspective of methodological validity. Both groups considered the assumption possible and relevant given the type and character of the research.

⁸⁰ The logic behind this was that while ‘process’ is essential for the actual use of SEA follow-up (0.4 points), the planning, political-administrative, socio-economic and existing institutional and legislative bases (0.3 points) predetermine the SEA follow-up performance, which influences and is influenced by the structural factors (0.3).

divided by the number of variables separately. E.g., for structure, the total implementation value 33 was divided by 9 variables and the averaged value of 3.67 was obtained (the numbers are rounded to the second digit after the decimal point; column 5, [Table 3-9](#)). In order to be able to compare the values across dimensions of a case or of a multitude of cases, the obtained values need to be ‘normalised’ by multiplying them by the corresponding ‘default score’ of a dimension. E.g., the averaged value for the context variables (4) is multiplied by its ‘default score’ 0.3 to obtain the normalised value of 1.2 (column 3, [Table 3-9](#)). The normalised values for the three dimensions are summed up to get a final value and a final grade.

This calculation allows for relatively more precise judgments about the overall performance of SEA follow-up to the extent relevant to the qualitative and exploratory type of the research. This was tested on a Pilot Case and later, when five cases data became available. It proved to be useful at least when there is a need to:

- compare across the dimensions within a case or across cases. For instance, while in the absence of the calculation the average grades given by the analyst to the context and structural dimensions would be e.g., ‘Bs’, the normalised values allow saying that e.g., the context variables perform ‘better’ than the structural ones;
- compare the design or implementation components of dimensions of a case or across the same dimensions of various cases. Namely, while in the absence of the calculation the analyst assigns the average B grades to the *design* and *implementation*, the normalised and average values allow saying that e.g., some dimensions are ‘better’ *envisioned* than *implemented*; and
- compare the performance of SEA follow-up across cases. In the absence of the calculation, the final grades given to Case X and Case Z might be Bs. However, the final values which are based on the normalised values can show that e.g., Case X performs ‘better’ than Case Z.

Finally, the research intended to move further to interpret and explain the findings, draw and discuss conclusions and derive lessons. The *explanatory* accounts were built to answer the questions as to why the data and findings took/could take the forms found ([Figure 3:3](#)). They sought to establish the explanatory linkages between the SEA follow-up variables and explore their interplay. Within-case analysis mainly deployed a ‘paradigmatic’ (or variable-oriented) approach (Miles & Huberman 1994,91), especially relating to descriptions and explanations. Limitedly, a ‘syntagmatic’ or process-oriented approach (Miles & Huberman 1994,91) was used whenever it was needed to deepen the discourse over the SEA follow-up variables. For both approaches, descriptive and explanatory analysis matrices (checklists), charts, and

figures were extensively used (Chapter 6, [Appendix I](#)). The cross-case analysis utilised mixed case- and variable-oriented approaches based on the meta-matrix constructs (Chapters 7 & 8).

To allow for more insights, it was needed to look for interpretations and clarifications in the theories engaged in the conceptualisation of the SEA follow-up framework ([Figure 3:1](#)). This ‘closing the loop’ way of building explanations is widely acknowledged in social research literature (e.g., Patton 1990; Ritchie & Lewis 2003). It also provided for strengthening the links between the theory and practice of the SEA follow-up research.

3.5 Credibility, reliability and transferability

“How can an inquirer persuade his or her audiences that the findings of an inquiry are worth paying attention to...?” (Lincoln & Guba 1985,301). This issue of trustworthiness of qualitative research is attempted to be assured through somewhat overlapping notions of credibility, reliability and transferability (e.g., Lincoln & Guba 1985; Patton 1990; Punch 1998; Tashakkori & Teddlie 2003). Credibility involves understanding whether the results of qualitative research are credible or believable from the perspective of the participants in the research (Trochim 2006a) and/or experts/researchers in the field (a so-called “peer debriefing” (Lincoln & Guba 1985,308)). This is closely connected to the ability of the research to verify its results. Reliability or dependability deals with the consistency and explicitness of the research process in terms of procedures, methods or connectedness to theory (e.g., Miles & Huberman 1994; Tashakkori & Teddlie 2003; Trochim 2006a). Transferability refers to the degree to which the inferences obtained in the research can be generalised or transferred to other contexts or settings (e.g., Miles & Huberman 1994; Tashakkori & Teddlie 2003; Trochim 2006a). To enhance credibility, reliability and transferability this research envisioned a number of design elements/approaches:

1. Credibility of the research (and researcher):
 - Iterative research design (with inter-active empirical and theoretical research steps);
 - Corresponding/consulting with SEA professionals/researchers;
 - Peer-debriefing and consultations on certain chapters/issues by several external reviewers (e.g., five experts commented on the prospectus, internal and external supervisors as well as the members of the author’s PhD Committee were consulted in the course of the research);
 - Verifying some results of the research through writing an article on a SEA follow-up case in Saskatchewan together with the SEA researcher-practitioner familiar with the case setting and with the key actor to the ongoing follow-up (see Gachechiladze *et al.* 2009). Constructive

case critique was received from two anonymous reviewers, the general aspects of which were carefully considered for other SEA follow-up cases of this research. The paper was published in the international professional journal, which points to the validity and credibility of the findings and conclusions. Also, three papers were presented and discussed at international conferences (Gachechiladze 2008a; Gachechiladze 2008b; Gachechiladze 2009);

➤ Another approach was utilising the e-survey data for the verification of certain findings (Chapter 7). Finally, by turning back to the professional SEA and the related theoretical literature it was possible to verify conformance and study inconsistencies of some findings;

➤ In terms of credibility of the researcher, preparation and self-training for the field research (e.g., rehearsals, reviewing materials in advance, preparing protocols, keeping up enthusiasm during the interviews, etc.).

2. Dependability/reliability:

➤ Designing the research strategy and methods in congruence with the needs of the research and the nature of the research phenomenon, SEA follow-up;

➤ Assuring that the research tasks and objectives stem from the research aim and question;

➤ Demonstrating the dependability/connection of the proposed SEA follow-up framework on literature analysis of the current SEA debate and theoretical background;

➤ Detailing the research methods and design to allow for the replication of research in other contexts, etc.;

➤ Peer-reviewing and consulting with the supervisors and advisers on research strategy and methods; and

➤ Periodic checking for consistency between the tasks and objectives of the research and the results of individual Chapters.

3. Transferability:

➤ Describing the research context and keeping the findings in context;

➤ Describing the research assumptions, guiding principles, etc.;

➤ Developing e-survey and several times revising the SEA follow-up framework based on various methods (literature review, empirical evidence/observations, theoretical analysis);

➤ Triangulating data sources (incl. combining interviews, observations, and document analysis and cross-comparing data obtained from them, whenever possible);

- Considering the consistency of answers from many respondents based on the similar interview questions with regard to the same case;
- Including various relevant stakeholders in the interviewees' circle and considering different perspectives as much as possible; and
- Describing the way SEA follow-up framework is proposed in detail to allow for the replication of case studies.

This research abstains from generalisation on the basis of six cases located in two countries with mature EA systems. In other developed or developing countries with moderately developed or recently established EA systems, SEA follow-up may be influenced or enabled by variables other than those proposed or emerged in this research. Thus, recommendations were drawn primarily for the similar urban and mixed (urban-rural) transport initiatives in the UK and in countries with a similar administrative-planning organisation or SEA traditions; long-term forest management plans in Saskatchewan or other Canadian provinces with similar forest management policies or similar planning or EA traditions; and long-term spatial and land-use planning in the Canada's Capital Area as well as for other NCC's strategies.

3.6 Limitations, biases and other caveats

The limitations of the research concern the following issues:

- **Research boundaries:** though for qualitative researchers, all perspectives are valuable (see Taylor & Bogdan 1984), the time and space limitations did not allow taking into account all theories/concepts and stakeholder perspectives that may relate to SEA follow-up. These were restricted by the existing SEA discourse as justified in this Chapter and Chapters 2 & 4.
- **Environmental advocacy:** the current research acknowledged the triplicate nature of sustainability-oriented strategies, i.e. it looked into environmental, health, economic, and social follow-up, as applicable. This way it abstained from considering SEA follow-up as an environmental protection tool as it might be a case at the earlier stages of SEA evolution.
- **Empirical focus** of the research was on SEA follow-up in developed countries as those had more mature SEA systems. This, however, was dictated by the nature of the evaluand, SEA follow-up, and became one of the criteria of the case search (see above).
- **Sampling and scope:** the author accepts that there could be various opinions as to whether the choice of countries, level of planning and sectors of cases was appropriate and whether the 33 variables of the SEA follow-up framework were complete and wide enough in scope. To

this end, the case search and selection process was initiated early in the research process as justified above, an iterative process of selection and refining of variables was used, and the framework and research strategy were open to accommodate any important recurring themes;

➤ **Data availability:** some research limitations were connected with data availability for case studies. For instance, it was not possible to access financial data and some annual reports for different years were missing or not publicly available. In these cases, the information was sought from the interviewees, whenever possible or it was attempted to be substituted by the data from indirect sources or by the generalised data from several-years reports, etc.

➤ **Terminology, translation and interpretation issues.** Translation difficulties were avoided in the sample countries that had English as an official language, i.e. UK and Canada; however, the problems with interpretation pertained. The e-questionnaire contained the explanation of basic terminology, yet some respondents marked in the 'other' field that they did not understand what was implied under different terms. Dealing with the terminology issue during the interviews was quite easy as any unclear term was clarified on site or could be re-checked with the SEA experts from the hosting institutions.

➤ **Biases.** The interviews were the important part of the research methods for this work, which therefore was exposed to the common biases of interviews, e.g., no guarantee that the interviewees answered sincerely and to the best of their knowledge (e.g., Sommer & Sommer 2002). To minimise this, the triangulation of data sources and collection methods was used. As to the author's bias, before each interview, case study and writing block the author would go through self-preparation process, as mentioned above, got familiarised with the methods of interviewing, comforting the interviewee, data collection and analysis.

3.7 *Conclusions*

The research was exploratory in nature and consisted of the interconnected preparatory, theoretical and empirical phases. The aim, objectives and tasks of the research were formulated during the preparatory stage and refined over the theoretical stage. Three steps of the theoretical stage led through the methods and strategies for conducting literature review, examining the evolution of SEA follow-up, conceptualising it and proposing the framework, verifying the research results, and drawing recommendations. They deployed such qualitative methods as desk review, e-content analysis, analytical discourse, correspondence with SEA researchers, and triangulation of literature sources. The empirical stage detailed the methods and strategies for testing the framework, conducting case studies including a pilot case, field

trips and interviews, preparing protocols for case studies, developing e-questionnaire, and conducting a two-round survey. To analyse data an analytical hierarchy was adjusted to fit the research objectives. The research's quality was assured through various design elements for enhancing its credibility, dependability, and transferability. The research encountered some limitations, the description of which is followed by measures undertaken to minimise them.

CHAPTER 4. EVALUATIVE AND EXPLANATORY SEA FOLLOW-UP FRAMEWORK

Chapter 4 analyses SEA follow-up and its assumptions in the context of the related theories and SEA discourse and proposes a testable SEA follow-up framework⁸¹. First, it discusses the approach to conceptualising SEA follow-up in relation to the three clusters of theories identified in Chapter 2. Then, it proposes three dimensions for the evaluative and explanatory framework, for each of which it specifies and discusses the main conceptual constituents. In the course of the discussion, it lowers the abstraction level by translating conceptual definitions into testable variables⁸². The proposed operational variables are not articulated in strictly normative terms. Rather they convey the essence of the theoretical concepts, reflect the potentially favourable preconditions for implementing SEA follow-up and allow for judging about their performance or state of development (for methods see Chapter 3)⁸³. The Chapter concludes with a summary.

4.1 Conceptualising SEA follow-up framework

4.1.1 Approach to theoretical framing

The potential relevance of different theoretical perspectives for SEA follow-up in the virtual absence of research on how it shapes decision-making during the life of a strategy makes the task of setting the boundaries for follow-up challenging. Which elements of theories and concepts should be brought under its framework? How can they help conceptualise SEA follow-up in the context of aspirations towards sustainability and strategic changes?

On the one hand, the concepts that have migrated from the theories to the SEA discourse are to be projected onto the current understanding of SEA follow-up and further elaborated upon in the new context (Figure 4:1). This allows linking SEA follow-up with the notions and issues in the modern SEA thinking.

⁸¹ The Chapter fulfils Task 2a) to analyse the state-of-the-art SEA follow-up and its assumptions in the context of the related theories and SEA discourse and Task 2b) based on 2a) to propose an evaluative and explanatory framework for SEA follow-up and suggest variables to enable its empirical testing (Objective 2, Table 1-1).

⁸² The principles that guide the translation suggest that variables would: i) draw upon the elements, assumptions, and objectives of SEA follow-up as defined in Chapter 2; ii) consider the decision-making and implementation realities and include the challenges raised in the SEA/SEA follow-up discourse (Chapter 2); and iii) consider the best practice SEA and EIA follow-up and the results of SEA evaluation and EIA follow-up studies (Chapter 2).

⁸³ Chapter 4 omits those variables that have appeared to be unsuitable or of minor importance to the explored SEA follow-up practice; those are described in Chapter 3.

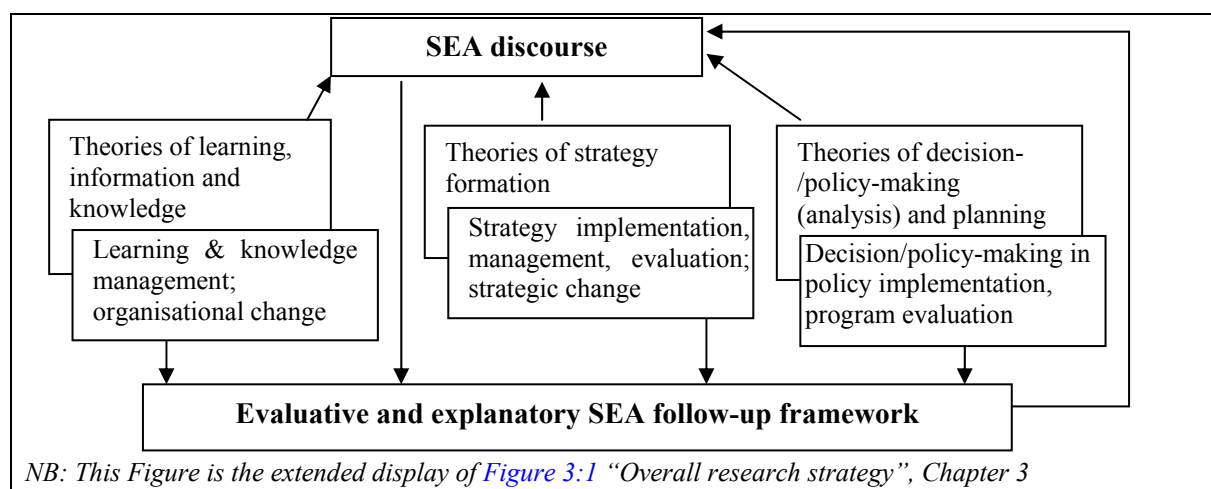


Figure 4:1 Schematics of conceptualising SEA follow-up

On the other hand, conceptualising SEA follow-up should go beyond this. If the understanding of SEA follow-up is to advance, the theories should be also approached from the perspective of the specifics of strategic follow-up, its assumptions, challenges, benefits, and objectives. A specific nature of ‘follow-up’ would require relevant inputs and insights. In this respect, the discussion should focus on the concepts and elements of theories that refer to e.g., *policy implementation, program evaluation, strategy management and control, organisational change, strategy learning and behaviour*. Their experience of dealing with the ‘post-formulation’ stages of strategies may inform and enable a ‘successful’ SEA follow-up framework⁸⁴. Thus, the challenge should be approached from two ends ([Figure 4:1](#)).

Considering the numerous assumptions, goals, and objectives of and expectations from SEA follow-up and the multifold interpretations of ‘effectiveness’ and ‘success’ for SEA (Chapter 2), shaping a generic framework SEA follow-up is an important step towards its conceptualisation and empirical examination. Shaping presumes the existence of certain factors that would potentially benefit a PPP implementation and SEA in general and include the core components of follow-up and their interactions with a variety of simultaneously unveiling processes related to a PPP delivery in a particular policy/planning context.

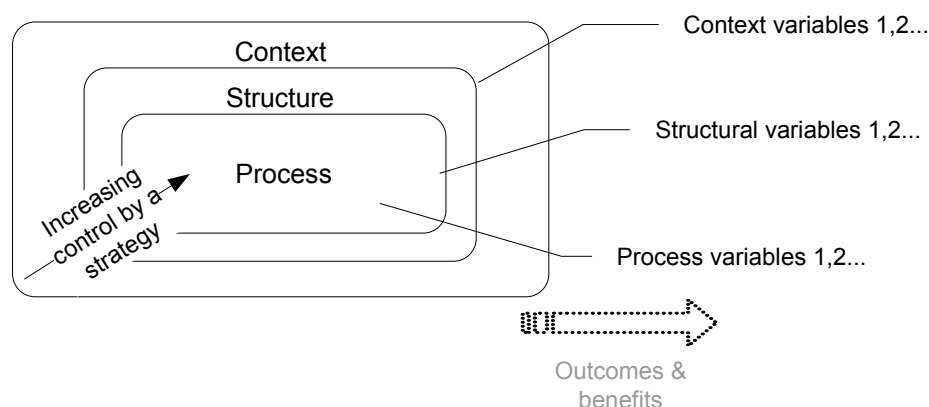
4.1.2 Three dimensions of the SEA follow-up framework

Framing SEA follow-up is associated with the delineation of several broad dimensions based on the principle of controllability by a strategy. First, at the heart of the framework is the ‘process’ of SEA follow-up ([Figure 4:2](#)). What are the necessary and enabling elements or

⁸⁴ The line of reasoning is similar to that used in many theoretical SEA discourses (Chapter 2).

processes of this dimensions that can foster SEA follow-up? They primarily include elements and processes that are of the immediate importance to SEA follow-up and are controlled by it (Point 4.2). They, for instance, would deal with the design and implementation of the core SEA follow-up components such as monitoring or evaluation (Chapter 2).

Evaluative and explanatory SEA follow-up framework



NB: This Figure is the extended display of [Figure 3:1](#) “Overall research strategy”, Chapter 3.

Figure 4:2 Translating SEA follow-up framework into dimensions and variables

Then, the process of SEA follow-up takes place within a certain organisational and societal structure that may perform according to the established rules and practices. This structural dimension is of particular interest as it deals with the elements and processes that can both be exposed to the influence of SEA follow-up implementers and affect the success of SEA follow-up ([Figure 4:2](#)). So, what organisational and societal processes and structures are the vital or necessary preconditions to facilitate the conduit of SEA follow-up process? How can they and SEA follow-up influence each other? This dimension is explored with a special emphasis on the needs to facilitate not only the minimum routine of SEA follow-up, but also enhanced cooperation, competences, stakeholder learning, etc. (Point 4.3).

Finally, the third dimension of the SEA follow-up framework is the larger strategic context, in which a PPP and the process and structure of SEA follow-up evolve ([Figure 4:2](#)). The favouring preconditions are also of concern here: What can be the planning, institutional, or socio-political forms and processes to presumably foster the process of SEA follow-up? Those forms cannot be controlled by SEA follow-up, however it is influenced by them and thus needs to be aware of their features, be consistent with, and tailored to, them (Point 4.4).

All three dimensions of the SEA follow-up evaluative and explanatory framework engage to deliver ‘outcomes & benefits’ of follow-up ([Figure 4:2](#)). As there is no definition of what the

outcomes of SEA follow-up are, it is necessary to clarify this for the purpose of further analysis (see Chapters 5, 7, & 8). Generally put, *outcomes of SEA follow-up are the short- and long-run effects of SEA follow-up implementation on the unfolding strategy, ongoing decision-making, actors involved, and the broad implementation and planning organisational routine*. The interplay of the components of the three dimensions largely determines the extent to which the outcomes *are* the expected benefits of SEA follow-up and how they contribute to PPP's environmental and sustainability goals. The outcomes of various nature and scales can be identified at different stages of the SEA follow-up and PPP implementation. For instance, such an outcome as enhanced management ability may results from the outputs of either monitoring (e.g., the identified impacts), evaluation (e.g., recommendations or judgments in regard to these impacts), or management (e.g., a response decision/action).

The following sections consider the process, structural, and context dimensions of SEA follow-up in turn and propose the variables accordingly.

4.2 Process dimension

The process dimension of SEA follow-up in the first place would embrace the design, contents and managements of its procedural steps, namely, screening, scoping, monitoring, evaluation, management and communication. It would also include methods, techniques and approaches used by the stakeholders to accomplish the procedural steps. The ways of formulating the SEA follow-up objectives, steps and actions and specifying the methods and responsibilities in the SEA follow-up process are of particular concern here. The completion of each procedural step, in heuristic terms, may require the reflection to both a follow-up program and its PPP. Then, procedural, methodological, and institutional integration of SEA follow-up with a strategy at stake and the characteristics of the ongoing implementation process are at the heart of a successful SEA follow-up. Finally, coping with uncertainties and implementation gaps intrinsic to strategies requires different degrees of adaptability and sensitivity of SEA follow-up and PPP implementation⁸⁵. For example, the contents of a PPP and correspondingly its impacts may be drastically modified, negated or further developed in the course of PPP implementation. The causes may be e.g., top-down changes in the context dimension of SEA follow-up and/or bottom-up 'emergent' changes in the implementation pattern of a particular PPP. Such changes would require deep to routine modifications in the

⁸⁵ Similarly to SEA, SEA follow-up should acknowledge different types of uncertainty it may face (Chapter 2).

SEA follow-up program. Also, unexpected effects revealed by follow-up may call for deep to routine changes in the PPP. In this regard, to achieve its substantive goals, SEA follow-up needs to iteratively evaluate and reflect on the PPP and follow-up implementation.

A need to possess the mentioned features requires that SEA follow-up be characterised as an evaluative management enabling process and a reflective learning enabling process. Such a characterisation of the process of SEA follow-up bridges it to the current SEA and strategy formation discourse regarding the transformative, static and procedural nature of SEA (Chapter 2). It implies balancing of a rationalistic procedural essence of SEA follow-up, i.e. the stepwise design needed to facilitate the integration with a PPP implementation, and its long-run transformative intention. Being transformative has a broader meaning for SEA follow-up, than for a traditional ex-ante SEA in that it is not only concerned with how influential decisions for long-term changes are made, but also how these changes are achieved and continuously, adaptively managed. As an evaluative management enabling process, SEA follow-up conveys its ultimate goal to evaluate the course of a change in order to manage a change, i.e. the implementation of a strategy, according to the desired sustainability priorities. Sustainability priorities might change over time and therefore, implementing SEA follow-up would imply a continuous reflectivity on this change, correcting a course of actions and allowing for different forms of learning for future.

Thus, the process dimension intends to set the precondition variables to deal with *inter alia* the following questions: Can SEA follow-up influence (to a certain degree) a PPP delivery? Has the influence of SEA on ex-ante decision-making and PPP formulation made any difference for the actual PPP delivery⁸⁶? Can SEA follow-up deal with the unpredicted, informal, emergent processes? If, under unexpected conditions, PPP changes can SEA follow-up ensure the environment and sustainability are considered? Do the assumed ‘splash’ and ‘strategic’ effects of SEA follow-up provide for consistency with standards and policy targets at other planning tiers?

⁸⁶ This question is in a way fundamental, as it directly relates to the substantial aims of both SEA and SEA follow-up and in this light connects to another question: i.e., whether the influence of SEA on decision-making and PPP has been meaningful and sufficient for achieving the desired objectives for sustainable development. If yes, the rationales for SEA follow-up still underpin the need for it, and if not, SEA follow-up may help correct the undesired/divergent situations during PPP implementation.

4.2.1 Process variables

The variables proposed for the process dimension of the SEA follow-up framework are summarised in Table 4-1 and discussed further.

Table 4-1 Variables of the process dimension of SEA follow-up framework

Process dimension
Statement of SEA follow-up rationales and goals for different decision-makers and planning tiers (also in relation to SD principles)
Screening (methods) at the earliest stages of SEA and strategy development
Scoping (methods) at the earliest stages of SEA and strategy development
<ul style="list-style-type: none"> ➤ Formulation and implementation of SEA follow-up steps: types, design, methods, inter-coherence & roles: ➤ Monitoring ➤ Evaluation ➤ Management ➤ Communication
Integration of SEA follow-up with the implementation e.g., performance monitoring of its strategy
Consistency of SEA follow-up targets and standards with those of upper, low, or horizontal strategies and policies (Explicitness of tiers)
Assurance of open stakeholder cooperation and coordination incl. consensus-building on SEA follow-up method/process
Adaptability of a PPP and SEA follow-up to ensure: <ul style="list-style-type: none"> ➤ feedback from subsequent decision-making to the initial PPP within the SEA follow-up scheme (organisational anchoring). ➤ Provisions for response measures to (non) deliberate situations or external changes ➤ revision of SEA follow-up if the contents of a PPP changes ➤ revision of a PPP if SEA follow-up reveals unexpected impacts

4.2.1.1 *Explicitness of SEA follow-up rationales and goals*

To clearly establish goals of SEA follow-up is important as this links its design to the goals of a strategy and directs the implementation of SEA follow-up. The organisational theory highlights the need to have rationales and goals translated from a layer to a layer in the organisation to allow it to effectively implement a strategy (e.g., Gerloff 1985). For SEA follow-up, this means that the organisations implementing SEA follow-up should not only set clear overarching goals, but also bear the capacity to translate those into comprehensible and feasible objectives of sub-strategies. However, this is also not enough, since value added follow-up also requires setting links among numerous goals, rationales, and purposes of SEA follow-up of particular and related strategies (Gachechiladze 2008b).

It might be hard to develop comprehensive goals and explain rationales behind them as a clear ‘rational’ goal to one actor might seem less meaningful to another. Various goals and often-conflicting interests of different stakeholders should be addressed through negotiation and consultation in the SEA follow-up process. The latter should create a possibility to negotiate contradicting rationales and goals amongst different planning tiers and different stakeholders.

SEA follow-up may point out to ‘unsustainable’ and/or inconsistent goals or targets set in the related strategies. This disclosing capacity of SEA follow-up may become especially evident if SEA or a PPP has been laid out in the context of conflicting strategies. For example, where the ‘unsustainable’ goals or targets of the preceding and thus leading strategy does not allow for the improved goals of a later strategy (e.g., Therivel 2004,106). Then, there could be a danger that a mixture of goals, rationales, and purposes of SEA follow-up of a particular and related strategies might result either in high level of separation and/or abstraction (a sort of NIMBY) or in structureless efforts. Strong coordination along with close cooperation might be able to prevent or overcome this danger (see [Point 4.2.1.6](#)).

4.2.1.2 Early/timely screening and scoping

Once the goals are set, following the traditional wisdom of EIA follow-up and SEA, it is necessary that SEA follow-up screening and scoping are accomplished at early stages of SEA and strategy development. Screening and partly scoping may be partially predetermined by formal or soft regulations or emerged ad-hoc based on the consultations. Particularly important is the scoping stage of SEA, since “the scope of monitoring is a direct consequence of the scope of SEA...[and as a rule] only those aspects can be monitored that have been classified as relevant” in SEA (Sommer 2005, 72). A recent study of SEA monitoring also points to an added value of early scoping: “it is helpful to consider monitoring measures within the [SEA] scoping stage to raise awareness of the task” (Hanusch & Glasson 2008,612). More concrete follow-up measures can be proposed as SEA and PPP are being prepared and when there is a better understanding of potential effects.

Scoping as a means of concentrating SEA follow-up program on the issues crucial to the stakeholders involved in the PPP implementation is essential. It may help mitigate the problem of knowledge generation or utilisation, which exists in all three stances of knowledge and learning in SEA- i.e. for SEA, during SEA, and as a result of SEA (Chapter 2). It should clearly refer to the recommendations produced as a result of SEA and explain how the initial boundaries for the SEA follow-up activities are drawn, e.g., if mitigation measures and residual effects are considered and follow-up stakeholders identified.

The approaches used for SEA follow-up screening and scoping should be clearly documented. Whether those have relied on the corresponding stages in SEA and used the same approaches, e.g., consultations, experts judgments, check lists, has to be stated. Similarly to the multi-stakeholder approach to scoping in SEA, scoping for SEA follow-up would need to be

participatory. The implementers should decide on the scope and nature of the information they might need to manage the regular implementation and contingencies. The authorities, if other than the proponents, should decide on the type of information they need from a particular SEA follow-up program for e.g., reporting or monitoring databases. The public/NGOs should participate in the negotiations on follow-up to express their priorities or concerns about the type of information they would like to receive over years. Ultimately, the scoping activities will influence the design and methods of SEA follow-up.

4.2.1.3 Specified design, methods, and coherence of monitoring, evaluation, management and reporting

The methods and approaches deployed for the SEA follow-up should be specified and possibly well-scheduled in relation to the planning, staff and budget. Similarly important is the coherence between the monitoring, evaluation, management and communication actions and their correspondence to the goals and rationales of SEA follow-up. Interconnectivity and a smooth flow of information between the activities and actors should be secured. Coordinated actions for transferring and storing data are needed both within the main organisation-implementers and to connect to the potential external knowledge users. Within each activity of SEA follow-up, the following questions are to be explored:

➤ **Monitoring:** What is the type of monitoring planned and implemented and can it be classified according to three broad monitoring tracks, i.e. impacts monitoring, implementation monitoring, other related activities monitoring (Chapter 2)⁸⁷? What are the monitoring methods, e.g., social survey, checklists, scientific research, etc? Is monitoring external or internal? What is the ratio of environmental monitoring indicators in a PPP and do they follow from SEA? Is there a schedule of monitoring works with tasks and people assigned? Are the data presentation formats considered?

➤ **Evaluation:** What is the type of evaluation planned and implemented and can it be classified according to five evaluation tracks, i.e. area-wide evaluation, impacts evaluation, goals-achievement, performance or conformance evaluation (Chapter 2)? Who does conduct evaluation and is it conducted internally or externally? What are the evaluation methods? Are

⁸⁷ The monitoring types are: A. monitoring of actual environmental, socio-economic and institutional changes relevant to: 1. the broader context of formulation and implementation of a strategy (e.g., envisioned scenarios, underlying assumptions), 2 progress towards strategic goals; and/or 3. actual impacts of a strategy; B. monitoring of actual implementation activities within the strategic initiative itself and C. monitoring of other activities related to the implementation of a strategy (Cherp *et al.* forthcoming).

they consistent with monitoring research? Is monitoring information technically compatible with evaluation software/formats? How are the evaluation results communicated/presented?

➤ **Management:** Who is supposed to make and who does actually make a use of evaluation information? What is the type of management and can it be classified according to four management types, i.e. I. decisions on revising a PPP; II. direct implementation actions; III. activities controlled by a PPP; and IV. other activities affected by a PPP (Chapter 2)? Do the PPP management decisions/actions take into consideration SEA follow-up evaluation results? Is management flexible and adaptive? Is the organisation level and temporal scope of management responses operational or long-term? What kinds of decisions are taken at different organisational levels in the organisations-implementers? Are the management decisions and actions communicated and to whom?

➤ **Reporting/Communication:** What is the scope of reporting/communication, e.g., public involvement, reporting, consultations? What are the methods for communicating SEA follow-up and PPP implementation progress, e.g., internet forums, publications, hearings? At which stages does communication occur (at all stages of SEA follow-up)? Is the level of detail of the communicated information predefined for various stakeholder levels or groups (Chapter 2)?

The clarity about the methods used for the SEA follow-up activities and strong links among them can facilitate timely and cost-effective decision-making.

4.2.1.4 Integration of SEA follow-up with a PPP implementation

Two types of integration can be discerned for SEA follow-up: an ‘interior’ integration of SEA follow-up with the PPP implementation and an ‘exterior integration’ between SEA follow-up and the existing institutional structures ([Point 4.4.1.4](#)). It is presumed that to be effective SEA follow-up should be integrated with the implementation of a strategy and be tailored to its particulars. The extent to which the procedural integration might occur can be subject to different opinions, especially in the absence of practical evidence. In SEA, whilst the separation of the SEA and PPP-making is seen as meaningless, both a full and partial ‘concurrent’ integration are promoted by their advocates (Chapter 2). What kinds of integration modes exist in case of SEA follow-up is unclear yet.

Presumably, the SEA follow-up components can be designed in a way to form an inherent part of a PPP delivery. However, it is not only the procedural integration that should be envisioned for a successful institutionalisation of SEA follow-up. The theories of strategy formation teach that in the absent of normative profiles, a crucial emphasis should be placed

on strategy performance and on its integration with other implementation and administrative processes, particularly management control, information system, strategic evaluation, management style and organisational culture⁸⁸ (e.g., Hax & Majluf 1996; Rowe 1989; Stonich 1982). Frequently discussed integration modes in SEA hardly touch upon those facets (Chapter 2), as they focus more on the procedural and methodological rather than on social and institutional integration of SEA with a strategy. SEA follow-up may try to consider those processes in order to fit into existing organisational processes and practice⁸⁹. In this case, follow-up component will merge with PPP performance monitoring, internal control and compliance checks, evaluations, revisions, and other managerial decisions.

An accurate deliberation and knowledge of the PPP implementation process is needed (especially for plans and programs) as the basis for an integrated PPP-SEA follow-up scheme for each particular case. This is due to the problematic of tracking both the performance and conformance of a PPP (Chapter 2). Whilst, the performance is easier to follow due to the existence of the predetermined targets and indicators, the conformance requires the identification of outcomes, which are to be compared to the initial objectives. The effects of a PPP may take long to become visible; also, monitoring of different elements of ecosystems may require different time periods.

Some useful directions for integrating SEA follow-up (monitoring) with a PPP delivery can be found in some SEA or EA guidance. E.g., the EU SEA Directive's Guidelines suggest that:

"If monitoring can be satisfactorily integrated in the regular planning cycle, it may not be necessary to establish a separate procedural step for carrying it out. Monitoring may coincide for example with the regular revision of a plan or programme, depending on which effects are being monitored and upon the length of intervals between revisions" (EC 2003,45).

Some lessons from the ANSEA may also prove to be useful for SEA follow-up. The identification of 'decision windows' with the preceding understanding of the decision-making context is as much a need for SEA follow-up as for SEA. The 'decision windows' delineated over the SEA scoping stage would be influential for SEA follow-up as well, as e.g., decisions

⁸⁸ In particular, the theory of strategic management elaborates on four organisational elements that can provide fundamental means for institutionalising a strategy. Those are: a) the firms' structure- the way the firm's activities are organised (could vary from highly coordinated to decentralised), b) the leadership - a vague and esoteric concept, encompassing a need to establish an effective style as well as necessary staff and skills to execute the strategy, c) the fit between the strategy and company culture-the shared values that create the norms of individual behaviour and the tone of organisation, and d) the system for rewarding performance as well as monitoring and controlling actions (Pearce & Robinson 1991).

⁸⁹ Since some of those processes refer to the immediate and to some degree controllable context of SEA follow-up, they are considered among the structural variables (Point 4.3.1).

taken during SEA scoping and at those ‘decision windows’ moments would provide for a preliminary design and contents of SEA follow-up. However, SEA follow-up per se should primarily focus on managerial ‘windows’ emerging during the PPP delivery. The integration may most visibly occur during the formal management actions for PPP and SEA follow-up. Such an integration of ‘management’ processes of SEA follow-up and of PPP can be more straightforward than integration of monitoring or evaluation. The reason for this is that managers for both SEA follow-up and a PPP are the same actors, differently from other SEA follow-up steps, e.g., monitoring or evaluation, which can be done externally, i.e. by different research institutions.

As with the case of the ‘exterior’ integration, the organisation and applicability degree of the interior integration would depend on the characteristics of a particular PPP and SEA follow-up program. Ideally, SEA follow-up should seek to coherently link the information obtained from the exterior integration with the channels of the interior integration within a PPP. Thus, the existence and the level of elaboration of a PPP-SEA follow-up integration are important and need to be examined in practice.

4.2.1.5 Consistency of SEA follow-up targets and standards with those of related strategies

Strategies and their SEA follow-up need to conform to national (federal), provincial, and local standards and targets of those planning systems, where they are implemented. Clearly, in many cases these cannot be the same, as e.g., some national targets cannot be disaggregated to the local ones; however, the consistency would be maintained. There should also be coherence between the specific targets of strategy’s mitigation and follow-up measures and those of the related strategies at different administrative tiers. The explicitness of relations between at least the directly related tiers is important for tracking the effects in various directions, as the ‘splash effect’ of SEA follow-up suggests. SEA follow-up may point out to ‘unsustainable’ targets set in the related strategies. The consistency inquiry in SEA follow-up may also reveal the need to replace or revise some elements of a particular strategy or the older related strategies.

4.2.1.6 Assurance of open stakeholder cooperation and coordination including consensus-building on SEA follow-up method/process

To ensure co-operation and coordination of different administrations and stakeholders is critical for the SEA process (e.g., Partidario 2000; Sadler 2000). It is believed that in order to

achieve a willingness to cooperate in strategic decision-making, all those involved, i.e. administrations, agencies, politicians and others, need to perceive themselves as real actors in the PPP and SEA process (Fischer 2007, 27). The cooperation of stakeholders in SEA follow-up can be built on the collaboration platform established in the course of the SEA and a PPP preparation. If new stakeholders enter the process, the cooperation opportunities should be explored and the coordination and accountability should be established as clearly as possible.

Setting up an open cooperative process for SEA follow-up is closely related to the clear formulation and understanding of its goals as well as to the acceptance of assigned tasks. The opportunities for public involvement, for provision of inputs and access to SEA follow-up and PPP progress documentation are the necessary constituents of the good-will cooperation.

Furthermore, the multitude of SEA follow-up stakeholders, e.g., the proponents with sub-contractors, scientists, regulators and the public, requires proper coordination and leadership. This, however, should not affect the degree of cooperation. Rather, the adequate coordination and leadership can empower a locus, around which the (in)dependent stakeholder groups can be meaningfully put in cooperation.

In order for SEA follow-up to be practicable, it should be able to develop and maintain an institutional basis for negotiating adequate procedures and feasible methodologies for follow-up. Moreover, the practice of negotiation and mediation in SEA follow-up can be a necessary precondition for social learning. As a result, the parties to follow-up can be directed towards compromise and consensus on main procedural and methodological issues. The negotiation of SEA follow-up procedures and methods should take stock of different values, resources and intents of the parties. Thereby, the danger of facing deadlocks and situations when communicative processes do not necessarily lead to consensus can be reduced.

4.2.1.7 Adaptability of a PPP and SEA follow-up

Adaptability of a PPP and SEA follow-up can be grouped around three issues:

1. *The existence of the backward linkages from the subsequent decision-making to the initial strategy within SEA follow-up scheme.* The relevant decisions taken during those tiered subsequent strategies should be fed back to the initial strategy. It is argued that since the “implementation of...detailed activities that will generate impacts on the environment... may be relevant to observe...[to] enable a linkage back to the initial strategic initiative” (Partidario & Arts 2005,250). Thus, especially useful for SEA follow-up can be the information generated by lower strategies. It may include decision-making on more

detailed and concrete program or plans with SEAs or EIA-based SEA down to projects with EIAs.

2. *Provisions for response measures to (non)deliberate situations or external changes.* This is clearly connected to the provisions for adaptive management in the SEA follow-up process. Theoretically, two types of adaptive management can be discerned. First, it can be more ‘deliberate’ adaptive management, fitting into a PPP’s day-to-day performance and the proponent’s management routine. It may be preliminarily designed and negotiated among the actors in the PPP and SEA follow-up delivery process. This type of adaptive management is essential to assure ‘daily learning’ for SEA follow-up implementation (Chapter 2). Second, adaptive management may need to deal with situations that are outside of the direct control of the proponent, but affect the implementation of a PPP. This unexpected effects management might include ad-hoc adaptive measures, in response to external changes as they occur. This type of adaptive learning may add to ‘discontinuous learning’ in SEA follow-up stakeholders (Chapter 2).
3. *Provisions for adaptive revisions of both SEA follow-up and a strategy if i) the contents of a strategy changes unintentionally and ii) the unexpected impacts are revealed.* The problem of causality and the related ‘conformity effect’ of SEA follow-up (Chapter 2) stresses the need for meaningful mutually supplementing adaptability. Differently from external factors and their consequences for a PPP, the emergent elements of strategies emerge from their patterns of practice and occur beyond the routine adaptive management. The emergent strategy formation implies an unintended course of implemented interactions (e.g., Mintzberg 1994; see Chapter 2). Emergent decision-making cannot be fully separated from implementation and may, in principle, lead to a change of previously formulated strategies (Cherp *et al.* 2007,632). SEA follow-up is theoretically perceived as able to ensure environmental soundness of emergent actions. It should be flexible to the modifications in a PPP and in case of necessity be ready to conduct additional EAs and incorporate its recommendations in further follow-up. At the same time, a PPP needs to be responsive to the unexpected impacts identified by the SEA follow-up activities. The PPP may be revised to take into consideration the new circumstances, which in turn may require additional EAs⁹⁰. Overall, the provisions for the two-way adaptability are

⁹⁰ This is addressed in the EU SEA Guidance: “If an adopted plan or programme is modified as a result of monitoring, this modification may again require an environmental assessment...When deciding whether the

important to reinforce one of the SEA follow-up assumptions, i.e. a possibility to coordinate it and make it consistent with the implementation actions of a PPP. Furthermore, they create the background for both social and technical learning in SEA follow-up through both ‘discontinuous’ and ‘daily’ learning patterns.

4.3 Structural dimension

That being said, the process of SEA follow-up unfolds within a certain organisational and societal structure with its established rules and practices. The structural dimension is only partly under the control of SEA follow-up implementers. Many aspects of the ‘immediate context’ in the implementation studies and theories of strategy formation relate to the structural dimension of SEA follow-up (see [Point 4.4](#)). The implementation studies put forward the potential problems with information transfer and management in multi-layer vertical political-administrative systems and for horizontal inter-organisational connections (Appendix H). The similar concerns are associated with the issues of tiering in SEA and SEA follow-up as well as of the traceability of impacts along the tiers. The long-term tiering and informational integration become a central issue to SEA follow-up, as it is concerned with deliverables of strategies. Therefore, the aspects of an organised information transfer and enabled management are to be considered in the SEA follow-up structural dimension.

In relation to the information and management issues, the implementation studies highlight a need for transparency in delivery process. Simultaneously, they suggest that there should be a working mechanism for transferring feedback and adjusting the initial policy. The SEA literature promotes similar principles. To recall, the SEA process should be transparent, iterative, flexible, and adaptive to ongoing PPP-making (Chapter 2). However, due to the scarce SEA follow-up practice, it is hard to say whether those principles, if they have existed in the formulation stage, have influenced the post-decisional life of a PPP and whether such mechanisms work properly in reality. Their existence can be a useful precondition for successful SEA follow-up, given that continuity and adaptiveness in providing for the integration with, and feedback to, a PPP and the context are among the desired functions to support sustainability principles. If such mechanisms are not envisaged, the objectives of SEA follow-up to continuously inform, learn, control, and communicate will be undermined.

modification of the plan has to undergo an [EA] relevant factors in deciding the significance of effects may include how far the environmental performance of the plan or programme will be improved and which environmental effects have already been subject to a comprehensive environmental assessment” (EC 2003,45).

How well the implementation mechanisms work, or in terms of strategic management how a strategy is managed, relies on the extent to which the constituents of the organisation-system fit together. Regardless of whether the implementation occurs within a single organisation or within the network of those, the engaged organisational units should be in consistency to each other to smoothly operate and optimise the delivery process. This view has clear rationalistic assumptions behind; nonetheless, the important message is that ‘consistency’ should be addressed among organisations in the SEA follow-up and PPP implementation processes. Moreover, the presumable ‘splash’ and ‘strategic’ effects of SEA follow-up may require translating ‘consistency’ beyond the directly engaged organisations to other planning tiers.

Largely overlapping with the internal ‘fit’ and social components in strategy formation are the organisation’s and staff’s response issues proclaimed in the implementation studies (Appendix H). They can be a vital factor that can prevent or facilitate the institutionalisation of SEA follow-up. As it has been mentioned, the introduction of EIA has not been smooth and has faced different responses from positive to highly negative (Chapter 2). Similarly, SEA follow-up might face an organisational rejection, a structural resistance or rigidity, connected to follow-up’s intention to permeate the organisation’s daily activities. The existing informal connections and ‘purposive’ networking may contribute to overcoming negative responses.

To sum up, the structural pre-determinants for SEA follow-up would incorporate:

- clear institutional anchoring and the spatial and temporal development of SEA follow-up in the wider setting of vertically, horizontally, and diagonally tiered PPPs and subsequent assessments⁹¹. The questions raised in this relation are: Can SEA follow-up provide opportunities for the subsequent decision-making at different levels to use the information obtained from SEA follow-up? Is there a ‘splash’ effect in SEA follow-up and if so, how does it occur and how is causality handled?
- the implementation and organisation factors of the SEA follow-up and PPP process(es) including the extent to which the components of the organisation-system fit together within a single organisation or within the network of those and the engaged organisational units cooperate to optimise the delivery process;

⁹¹ This implies a certain dichotomy and resonates with the ‘vicious circle’ debate in SEA. That is on the one hand, the expectations linked to SEA follow-up relate to making long-term desirable changes to this context. On the other hand, the context predetermines the rationales, purposes and ways to implement follow-up and might foster or hinder implementation and integration of feedback.

- the qualities of the SEA follow-up process and information connections including transparency of their delivery;
- stakeholders' perception of their roles and internal social 'fit' in implementing organisations, including their response to the attempt to institutionalise SEA follow-up; and
- capacities needed for implementing PPP and SEA follow-up as the sub-disciplines⁹² in the contrasted display dictate (Appendix H), including resources and competences that need to be present or to be built.

4.3.1 Structural variables

The above themes of the structural dimension of SEA follow-up framework are converted in a set of variables (Table 4-2) and described below.

Table 4-2 Variables of the structural dimension of SEA follow-up framework

Structural dimension
Statement of strategy ownership and status of the proponents (partnership, contractors, etc.)
Specified timing & position of SEA follow-up in planning cycle and decision/policy-making processes <ul style="list-style-type: none"> ➤ in relation to SEA and its strategy formulation and delivery processes ➤ in the broader context of upper, lower, or horizontal strategies and their EAs
Acceptance of roles and responsibilities and accountability in SEA follow-up by relevant stakeholders
Transparency for SEA follow-up delivery activities
Commitment (motivation) by responsible stakeholders and acknowledgement of threats for non- implementing SEA follow-up
Competence (managerial) and adequate resources for SEA follow-up (time, funding, staff) mentioned in PPP/SEA budgets
Networking for credibility and mutual trust
Provisions and possibilities for capacity-building (education, training)

4.3.1.1 *Statement of strategy ownership and status of the proponents*

The SEA literature highlights that the implementers of follow-up may not be those who have developed SEA. SEA follow-up can be a wide collaborative effort involving a constellation of different organisations. It should be clear inter alia i) whether they have been engaged in the PPP and SEA preparation or have only the implementation function; ii) what the status of the proponents is, e.g., private or state, iii) what kind of agreements exist between the proponent organisations, e.g., partnerships, consortiums. This variable is related to the formal distribution of responsibilities and is necessary to ensure accountability when executing SEA follow-up.

⁹² 'Sub-disciplines' are generically used here: neither SEA follow-up nor a better-developed SEA purports to be a 'sub-discipline' such as e.g., the implementation studies. EIA may be closer to that as its theory and practice are vast and well established.

4.3.1.2 Timing and position of SEA follow-up in the planning/policy-making cycle

It is argued that the ambiguity may exist about the position of SEA follow-up in the planning cycle (Chapter 2). This relates to the clarity of its ‘function’, e.g., whether SEA follow-up intends to mitigate the predicted effects or control the effects of an ongoing changing strategies. Another related issue that raises questions is the timing when SEA follow-up enters the planning cycle. E.g., is SEA follow-up designed for a new strategy? Or is it introduced ex-post for a strategy being implemented? Or is it a part of a (repetitive) revision cycle?

In general, those issues of SEA follow-up can be viewed in a strategic planning context from at least two angles, those of time and space. Temporally, it is the position of SEA follow-up in relation to EA and its strategy formulation and delivery processes. Spatially, it is the position of SEA follow-up in the broader context of related upper, lower, or horizontal strategies. The SEA legislation and guidance may to some extent define the position and timing of SEA follow-up. However, the case-specific legislation and relevant documentation may better reflect the dynamics of a particular planning object and process. Overall, to allow for the effective and efficient SEA follow-up both time and space relations are to be specified.

4.3.1.3 Acceptance of roles and responsibilities and accountability

The SEA literature expresses fears that the diffusion of responsibilities may occur in the multi-actors and multi-level SEA process (Chapter 2). This can exacerbate in SEA follow-up where the casual relationships are not clear-cut and lead to lower accountability. The accountability issue has hardly been addressed in SEA follow-up. In fact, Persson & Nilsson (2007,478) contend that “missing from most of the SEA/EIA follow-up literature is holding the responsible decision-makers accountable for plans and program and their possible environmental effects”. Meanwhile, referring to the policy evaluation literature, they suggest that “democratic accountability” should be one of the SEA follow-up purposes (Persson & Nilsson 2007,478). Clarity in the roles and responsibilities of SEA follow-up stakeholders and more transparent decision-making can make the issue of accountability more approachable. First, the division of tasks among the actors should occur in accordance with the common values and objectives. This will not only provide for greater social accountability and transparency of SEA follow-up delivery, but will also increase the commitment of the actors. The activities of SEA follow-up might be better delivered if stakeholders understand and believe in their usefulness and can see how those contribute to achieving strategic goals. In this case, willingness of the implementers of SEA follow-up and PPP to render an account

towards the stakeholders, and the society in general, about their actions and the subsequent implications can be higher. Second, the mechanisms for public engagement and cooperation of stakeholders can make the decision-making process more transparent. In this light, the implementers of SEA follow-up and a PPP can become more accountable or can be made more accountable under the public pressure.

4.3.1.4 Transparency for SEA follow-up delivery activities

The need for transparency in follow-up is well argued in the literature (e.g., Arts 1998). Communication and public participation can be pinpointed as primary mechanisms for establishing transparency of SEA follow-up. One argument behind this is that transparency, which is essential to foster the dialogue and openness, may be attained by including all stakeholders in the follow-up discussions and process. Involving external groups in preparing and implementing SEA follow-up may add to the increased support for the adopted PPP and its legitimisation. Inalienable to this is providing stakeholders with a say in and access to strategy planning and performance information during SEA follow-up. This will reduce a risk of interest conflicts, mutual mistrust and dissatisfaction. E.g., if “conflicting goals were set in a PP, a transparent SEA follow-up process should acknowledge them and examine how they [were] dealt *de facto* with during implementation” (Persson & Nilsson 2007, 487).

The theories of strategy formation suggest that the extent of communication and transparency during the strategy making process in institutions is crucial for flexibility of strategy implementation⁹³. Moreover, transparency “permits members of the public to appraise the opportunities of having their submissions evaluated systematically” (Sinclair & Diduck 2001,131). Thus, similarly to how it is used in EA, transparency can be one of the indicators of transformative social learning among SEA follow-up stakeholders.

Setting up a transparent framework for SEA follow-up is closely related to organisational and societal factors. A variety of methods can be deployed to provide for transparency of SEA follow-up from purely technical ones (e.g., common databases) to the participatory (e.g., direct involvement, reviews). To explore the transparency of the SEA follow-up and PPP delivery, the questions should be asked about the openness of the processes of e.g., choosing

⁹³ For example, explicit and implicit strategies differ based on the key question “How explicitly is the strategy formulated and communicated internally and externally”? The problem is that different levels of stakeholders and actors in organisations get or can access different type and different interpretations of strategic information from realistic to considerably distorted (Hax & Majluf 1996,17-20).

appropriate environmental follow-up objects, procedures, methods and degrees of public involvement, linking them to the goals of follow-up programs, making adjustment measures.

4.3.1.5 Commitment to follow-up and acknowledgement of non-compliance

A long-term SEA follow-up process requires continuous fulfilment of commitments. The lack of social commitment to conducting SEA and of political commitment to promoting environmental assessment is among the major impediment to SEA as well as follow-up (e.g., Dalal-Clayton & Sadler 2005; Fischer 2005; Pischke & Cashmore 2006). Political commitment in the structural dimension refers only to the local and immediate regulatory bodies and thereby differs from political commitment in the context dimension, which covers national policies. SEA follow-up should take into account cognitive factors and social values of all engaged parties, as this is a prerequisite for personal as well as collective commitment. Other important factors are how the actors define their attitudes towards and position themselves in SEA follow-up. Those are obviously linked to the degree of acceptance of roles and responsibilities in SEA follow-up. Drawing the parallel with the lessons from strategy implementation, commitment to SEA follow-up may be stimulated by management measures and reward systems that would involve considerations beyond salary and benefits. The strategy formation theories mention the creation of special incentives ranging from the ‘green image’ of the company to its international reputation or level of excellence in the field (e.g., Stonich 1982). Possibly, similar approaches may be applicable to organisations implementing SEA follow-up and PPPs in order to motivate the staff to work towards the overall objectives.

The long-term SEA follow-up process also requires explicit recognition of the implications of non-compliance with the set follow-up goals/targets. The threats of non-implementing the SEA follow-up actions (e.g., mitigation) should be clear to all stakeholders. Possibly, formal sanctions for non-compliance are to be stated upfront and communicated to all stakeholders.

4.3.1.6 Competence (managerial) and adequate resources for SEA follow-up

The existence of formal requirements is not enough for SEA follow-up to be properly designed and conducted. Institutional maturity, general interest, professional input and routine efforts are needed to keep follow-up program running. A precondition for effective SEA follow-up can be the existence or building of (intra- and inter-)organisational capacities and competencies as well as willingness to undertake follow-up. Those are particularly important to good management in SEA follow-up, as they include the ability to acquire the necessary resources for follow-up, to generate and provide comprehensive feedback on monitoring and

follow-up to different stakeholders, and to incorporate subsequent feedback and learning in responsive planning efforts (Gachechiladze *et al.* 2009).

Long lifecycles of strategies and SEA follow-up call for extensive inputs of time, money, and human resources by all stakeholders. During the SEA and strategy preparation (ideally, during their scoping) a pragmatic approach towards feasibility of SEA follow-up should be taken, as it is also suggested by the best EIA follow-up practice (e.g., Marshall *et al.* 2004). SEA follow-up programs need to be evaluated against the constraints of money, time, and human resources. They also need to consider the level and nature of strategy and the attitudes and desires of the stakeholders. To reduce costs where possible existing monitoring and management schemes (e.g., environmental management plans or the state of the environment reporting) and simple techniques (e.g., observation and inspection) could be explored. The continuity of staff with a similar level of preparedness for the SEA follow-up activities is important and should be supported by educational opportunities in organisations (see below).

4.3.1.7 Networking for credibility and mutual trust

Importance of networks is increasingly proclaimed in the SEA literature; however, this is seen as a practical challenge for SEA (Chapter 2). Creating and/or identifying networks can be a challenge in SEA follow-up as well. Though it is possible to rely to a certain degree on the networks identified and established during SEA, new formal and informal actor networks may enter the arena during the long-run implementation process. Formally, networking linked to and/or guided by the proper leadership can benefit SEA follow-up in terms of taking a coordinated and transparent move toward mutual goals. Both formally and informally, networking in SEA follow-up can provide for collective and individual learning among the stakeholders sharing the same interests and values. Generally, establishing stakeholder networks may help avoid disagreements, conflicts and confrontations during SEA follow-up delivery and PPP management. Ultimately, networking in SEA follow-up may result in an increased credibility of strategic initiatives, in understanding and appreciation of problems, values and interests of stakeholders and consequently in mutual trust.

The questions to explore the networking issue in SEA follow-up would include e.g.: What kind of networks and social relations are generated that influence SEA follow-up? How do those facilitate or improve, if at all, the development of mutual trust among stakeholders and the credibility of a strategic initiative? How do they contribute to learning for follow-up?

4.3.1.8 Provisions and possibilities for capacity-building (education, training)

Since follow-up to SEA is relatively recent in practice, the compiled follow-up schemes might require an additional implementation support. This can include providing training for existing human resources as to e.g., how to conduct monitoring and evaluation, how to interpret their results or when to consider those in management practice. Also, training with the purpose of awareness raising and engaging the local population in follow-up implementation might be needed for the public.

Thus, to provide for technical and social learning in SEA follow-up, the provisions for building the institutional capacity in the follow-up stakeholders should be envisioned. In this regard, a number of recommendations in the SEA and EIA follow-up literature are relevant for SEA follow-up as well. For example, to successfully implement SEA, it is advised to “provide training for all those who will be involved in SEA (decision-makers, environmental implementation authorities, consultants, stakeholders)” (Sheate *et al.* 2004,90). For EIA follow-up “education, training and capacity-building support” is needed alongside developing institutional memory and knowledge brokering by e.g., universities or research institutes (Arts & Morrison-Saunders 2004a,295).

Clearly, financial capacity would strongly influence the scope of an educational component in SEA follow-up. High rotation of implementing staff might necessitate additional resources for emergent training. To tackle these concerns and reinforce follow-up efficiency, differentiating between different types of trainings and targeting them at the relevant stakeholder groups may be useful. For instance, depending on the planned follow-up tasks and the desired learning outcomes, training programs may include adaptive/instrumental learning oriented elements for operational and middle-range staff and, if relevant, for the public or generative learning oriented elements for selected middle-range and top management.

The SEA regulations, legislation or PPP approval conditions may contain provisions for capacity-building. Regardless their existence or absence, self-evaluation of the existing capacities and possibilities for capacity development efforts should be conducted when designing SEA follow-up. When exploring SEA follow-up implementation, attention is to be paid to the existence and relevance of training components and their integration with the implementation activities of a PPP.

4.4 *Context dimension*

What may be the context in which SEA follow-up is embedded? A diversity of interpretations comes from the SEA literature, where the importance of understanding the context for effective SEA is well-argued⁹⁴ (Chapter 2). The context can e.g., be a decision-making medium that defines the nature of SEA by setting the priorities; or the formal, institutional and legal structures that relate to SEA and PPP-making; or the existing planning style and policy type; or the ‘broader context’ including the nature of the strategic initiative, the purpose attached to SEA, and the institutional, cultural and political character of the sector and organisations where SEA is applied (e.g., Bina 2003; Hilding-Rydevik & Bjarnadottir 2007; Kørnøv & Thissen 2000; Partadario & Clark 2000). Each of those can have different forms and features, e.g., decision-making can be multiple or single actor; planning style may be democratic, transparent, or power-controlled; policy type can be implicit, distributive or regulative. The common quality of the context processes is that they influence both formulation and implementation of a strategy and SEA.

One useful definition is that the context is the set of facts, circumstances or conditions that affect the chosen approaches to SEA, i.e. objectives, methods, and the outcomes of SEA implementation, i.e. impacts on a PPP and stakeholders (Hilding-Rydevik & Bjarnadottir 2007,668). There is an empirics-based argument that the affecting ‘facts’, ‘circumstances’, and ‘conditions’ of the context need to be defined in relation to a specific issue or question⁹⁵ and can be ‘context-dependent’ themselves (Hilding-Rydevik & Bjarnadottir 2007,674). With respect to the explanandum of this research, this suggests that context elements can differ to the extent SEA follow-up is specified. They are defined further.

Obviously, the above contextual processes and interpretations bear relevance for SEA follow-up. However, there is a need to relate the context to the formal ‘implementation’ of a strategy, including its ‘formation’, and to see what can be the input from the related theories in this regard. When exploring the question of how the context affects the role, implementation and outcomes of SEA follow-up, the difficulty lies in the wide spectrum of the context elements

⁹⁴ In fact, the very ‘strategic’ dimension of SEA is seen in terms of the relationships between the assessment process, planning and decision process and the broader context (e.g., Bina 2007).

⁹⁵ E.g., for the issue such as the use of SEA for integrating sustainability in regional development planning, the vital context elements have been identified as national policy style, characteristics of the planning agency, planning style, & political commitment to sustainable development (Hilding-Rydevik & Bjarnadottir 2007,674).

that may be relevant. One approach to address this can be to view the different perspectives in planning and policy-making and try to locate the SEA follow-up ‘context’ within them.

In this light, a useful background can be provided by the multi-perspective implementation studies, a “sub-discipline...within political science and public administration” (Hill & Hupe 2002,119) concerned with “how policy is put into action and practice” (Parsons 1995,461). The implementation studies put forward the groups of independent elements in the setting for a delivery process. These groups are drawn from the various perspectives in policy analysis, e.g., the advocacy coalition approach⁹⁶, network analysis⁹⁷, (neo)institutional analysis. They also contain the experiences of applying the contrasting ‘bottom-up’ and ‘top-down’ views to different policy implementation models in implementation and evaluation research⁹⁸.

To enrich the understanding of the context issues for implementation processes, a perspective of strategic management is introduced. Strategic management is about “decisions and actions that result in the formulation and implementation of plans designed to achieve a company’s [corporate] objective” and “involves long-term, future-oriented, complex decision-making” (Pearce & Robinson 1991,18). To some degree, this vision may not be compatible with that of the public policy implementation and analysis studies, due to differing standpoints of ‘the public’ and ‘the corporate (private)’. Nonetheless, the cases of plans and programs subjected to SEA and implemented by private profit-oriented proponents exist, that makes this input reasonable. Also, public plans and programs are similar to corporate strategies in that “they are formulated and implemented in well-defined organisational frameworks” (Cherp *et al.* 2007,638). Furthermore, corporatist entities or partnerships between the public and private

⁹⁶ The advocacy coalition framework consist of “actors from a variety of...institutions at all levels of government who share a set of basic beliefs...and who seek to manipulate the rules, budgets, and personnel of governmental institutions in order to achieve these goals over time” (Sabatier 1993,5). Sabatier & Jenkins-Smith (1993) describe policy subsystems that are affected by the external factors falling into two categories: relatively stable parameters, e.g., basic attributes of the problem area, fundamental cultural values and social structure, etc. and dynamic events, e.g., changes in socio-economic conditions, in technology, in governments and key personnel, in policy decisions and impacts from other policy subsystems.

⁹⁷ The analysis of policy network revolves around “patterns of relations between independent actors, involved in the process of public policy making” and implementation (Kickert *et al.* 1997,6). Importantly, “relations are the building blocks of network analysis” (Knoke & Kuklinski 1982,12).

⁹⁸ Pressman and Wildavsky - the founding fathers of implementation studies (e.g., Parsons 1995) – depict the top-down implementation process in terms of its relation to a formally documented policy. “Implementation may be viewed as a process of interaction between the setting of goals and actions geared to achieving them.” (Pressman & Wildavsky 1984,xxiii). In the implementation studies, this position is contracted to the ‘bottom-up’ or ‘street-level bureaucracy’ position that is concerned with the analysis of the behaviour of front-line staff. The “decisions of...[street level staff], the routine they establish, and devices they invent to cope with uncertainty and work pressures, effectively become the public policies they carry out” (Lipsky 1983,xii). In this light, Lipsky (1983) points out to the need of new forms of accountability to link the implementers and the public.

bodies are sometimes established to deliver a strategy. The context elements from both sub-disciplines are contracted with those from the SEA and SEA follow-up discourses with the purpose of identifying the common dominant themes and differences in the context scope along the themes ([Appendix H](#)).

The contracting display reveals similar dominant themes in the ‘contexts’ of implementation studies, strategy management, SEA, and SEA follow-up, e.g., legal provisions and institutional setting ([Appendix H](#)). However, the issues raised within the dominant themes differ. Some of them are especially relevant to supplement the existing ‘context’ vision of SEA follow-up. Others fall on the ‘structural’ dimension of SEA follow-up stressing the importance of those partially controllable elements that relate the ‘context’ to the ‘process’ (see above).

4.4.1 Context variables

According to the three-dimensional vision of the SEA follow-up framework, the aspects relevant to the context dimension involve the existing regulatory, political, institutional, planning, policy, socio-economic, and cultural conditions. They create the preconditions that determine a long-term success of SEA follow-up. The context variables of the SEA follow-up framework are proposed below ([Table 4-3](#)) and explored further in detail.

Table 4-3 Variables of the context dimension of SEA follow-up framework

Context dimension
Existing planning and policy-making practice and the SEA system incl.:
<ul style="list-style-type: none"> ➤ Planning type and policy framework for SEA/follow-up ➤ Political commitment to SEA/follow-up and influence ➤ Socio-economic preconditions for SEA/follow-up
Formal provisions for SEA and follow-up incl.:
<ul style="list-style-type: none"> ➤ Legislation and regulations (direct and indirect) ➤ Manuals, guidelines and guidance for SEA/SA/SIA ➤ Enforcement and compliance mechanisms ➤ Formal distribution of responsibilities (incl. existence of a coordinating body)
Formal compliance with sustainability principles (set in the national/sectoral SD strategies, white papers, etc.)
Possibility to incorporate SEA follow-up results in revised/updated/new strategies as per a planning cycle/tradition incl. provisions for adaptive planning and SEA follow-up system
Integration of SEA follow-up with existing monitoring systems

4.4.1.1 Existing planning, policy-making practice and the SEA system

In order to understand what SEA follow-up builds on, it is essential to look into the current style of applying SEA and at its objects. The policy implementation studies suggest that the clarity of the formulation of a strategy holds a clear bearing on the planning and decision-making style/culture ([Appendix H](#)). The special nature of the SEA system in any country

subsists in the existing planning and policy style, political perception and socio-economic ability. In this respect, a number of aspects are of interest:

➤ Planning type and policy framework for SEA/follow-up. What is the type and culture of planning in a country? How does (S)EA co-exist with it and what are the characteristics of the SEA system? For example, whether there is a tendency to aim SEA at addressing immediate planning impacts or to apply SEA to higher-level policies could make a difference for a long-run follow-up. Also, whether SEA is required to be systematically conducted for certain strategies by in-house forces or practised sporadically with an external support or funding can influence SEA follow-up. Is SEA applied retrospectively or pro-actively? Is the decision-making process for a strategic initiative clear? Furthermore, the existence of policy frameworks that support the SEA regime and provides opportunities for conducting SEA follow-up is vital. The frameworks can take different forms reflecting the traditional planning (PPP-making), political-administrative system and decision-making style. They may vary according to e.g., the diffused, shared, or centralised distribution of power and public authority within different political-administrative structures, the enforcement style or juridical system. Further, the practice of policy-making suggests considering the political and policy changes that influence EA, namely: i) trends towards decentralization of decision-making, ii) trend towards a reduction in the influence of the public sector, accompanied by an increase in privatization, and iii) growth in influence of NGOs (Bisset 2000, 150);

➤ Political commitment to SEA/follow-up and influence. Whether EA is on the political agenda of a country is decisive for the effectiveness of SEA application and for a conduit of SEA follow-up. The policy and legal setting can convey the government's commitments and obligations to SEA. The political acceptance can determine the commitment of resources for SEA follow-up as well as the government's will to work collaboratively with others on the SEA and follow-up issues. Also, the commitment of the public authorities to the environmental protection and sustainability can influence the extent to which they would be willing to undertake SEA and follow-up⁹⁹.

➤ Socio-economic preconditions for SEA/follow-up (including cultural aspects). It is argued that the state of the economy and socio-political stability in a particular country could

⁹⁹ Another side of a coin is the political commitment to use the SEA and follow-up results. This is related to the paradox of timing and listening (Chapter 2) and to the capacity of the SEA system and institutional setting to incorporate SEA follow-up results in the revised/new planning cycles (see further).

indicate the availability of domestic resources for developing and enforcing EA (Cherp 1999,61). Also, the regions within a country may have various socio-economic bases for follow-up, e.g., different employment and livelihood situations, different perceptions of a need for follow-up by the interest groups, different levels of traditional trust to authorities. Not all of those factors can be easily explored; however, familiarising with both a wider and narrower socio-economic setting for SEA and follow-up is useful. The general information on the environment and socio-economic context is usually found in SEA reports and PPPs. The scope and level of detail of these baseline data inevitably depends on the sectoral orientation and planning level of a strategy. The data may serve as a start-point for exploring and setting wider socio-economic context ‘boundaries’ for SEA follow-up in a specific case.

4.4.1.2 Formal provisions for SEA and follow-up

The power of legislative and regulatory systems and the need to consider and comply with the existing institutional setting is recognised by all sub-disciplines contrasted in the context dimension above (Appendix H). The formal basis for SEA and follow-up is instituted by the functioning political-administrative system and is expressed in the corresponding legislation, statutes and guidance. Whether the SEA system has already been formally established and to some degree institutionalised in practice can significantly affect SEA follow-up. The EIA follow-up experience testifies that “as EIA systems mature and the importance of EIA follow-up is recognised, the integration of follow-up requirements in EIA regulations is increasingly occurring” (Morrison-Saunders & Arts 2004,11). Likewise, the maturity of the SEA system can predetermine the introduction of legal provisions for SEA follow-up.

There is a solid conviction, that formal SEA requirements are crucial to ensure the consistent and effective application of SEA as well as the clarity for the actors involved in the SEA and PPP processes (e.g., Dalal-Clayton & Sadler 2005; Fischer 2007; Sheate *et al.* 2001). Similarly, formal requirements for follow-up are important preconditions for its practice and can make it a practically more structured and systematic exercise (e.g., Morrison-Saunders *et al.* 2003; Morrison-Saunders & Arts 2004,11). Interestingly, Partidario and Fischer (2004) report about some limited SEA follow-up to PPPs in the absence of the national legal requirements (Chapter 2). However, this can be seen as a rare exception possible mostly in the countries with old EA traditions, e.g., the UK, and triggered by some related underlying regional or local policies. Even a more developed and successful EIA follow-up was reported as deficient if it was not supported by legal provisions: “[t]he experience in the EC and

member states has clearly been that if post-project monitoring analysis is not contained in legislation, it is unlikely to happen or be effective” (Sheate 1996,113 in Wood 2003,241).

In many jurisdictions, soft (S)EA regulations, such as guidance, manuals and guidelines exist that may include directions for the preparation- and sometimes implementation- of SEA follow-up. Those deem to be important, as “[e]ven in the absence of legislation, guidance and training...can help promote integration of the environment into the most strategic decision-making” (Sheate *et al.* 2003,15). Thus, the existence and clarity of the guidance might influence SEA follow-up and need to be considered when exploring its performance.

A critical constituent of the compliance with the SEA follow-up requirements, if such exist, are enforcement provisions. They can be necessary both for the drafting (preparation) stage of SEA follow-up and later during its implementation. This precondition stems from the EIA follow-up studies, which find that despite the existing requirements for EIA follow-up, it is not always conducted (e.g., Morrison-Saunders *et al.* 2003). Also, the international comparison of the enforcement practice of the SEA provisions shows that it is a weak link in many countries (Fischer 2007). Three approaches to regulate compliance in the EIA follow-up practice, namely, the governmental control, self-regulation by the proponent, and community pressure¹⁰⁰ (e.g., Morrison-Saunders *et al.* 2001; Morrison-Saunders & Arts 2004) may possibly be considered for SEA follow-up and explored in practice.

Formal division of roles amongst the actors involved in SEA follow-up is needed to clarify the mandates and jurisdictions and allow for accountability. Generally, dividing roles may occur through the national level institutional and legislative SEA framework. In larger details, responsibilities may be predefined in guidance or case-specific (non)binding documents, e.g., PPP approval conditions, contracts, instructions. While the former is about the principles and mandatory obligations, the latter depends on the methodological solutions for SEA follow-up. Seldom may the provisions require establishing new institutions or organisations that would be responsible for SEA follow-up. The formal modes of stakeholder roles may reflect the governance type of the country and can foster or hinder SEA follow-up. E.g., a command and control approach with a strict division of roles may prove to be not so flexible for EIA follow-up (Thakur 2006,70); yet, it provides for a clearer administrative hierarchy. Overall, a clear responsibilities framework may reduce the ambiguity of actors in the SEA follow-up process.

¹⁰⁰ Those approaches are considered crucial for instigating EIA follow-up, however in a real life case there is not always a clear distinction between them.

4.4.1.3 Formal compliance with sustainability principles

SEA follow-up intends to secure the environmental quality and sustainability orientation of ongoing strategies. The planning and policy frameworks that set the background for SEA and follow-up can facilitate this intention by sufficiently reflecting sustainability orientation. SEA follow-up design and objectives should be explicitly linked to the regulations and policies setting the sustainability context. The implementation of SEA follow-up should streamline the compliance with the sustainability themes, principles and thresholds used when preparing SEA and PPPs as well as those emerging during the implementation. This may require the identification of the indirect policies, regulations, and guidance covering sectors other than that, to which a PPP belongs. The fragmented and isolated character of planning and environmental legislation frameworks, that is not rare, can complicate this¹⁰¹.

Another issue for SEA follow-up may be the relevance of many regulations or policies that promote conflicting topics and thus may cause tensions. Prioritising the principles to comply with or trying to balance and find trade-off as suggested for SEA may be a way to go in such situations. In sum, SEA follow-up is to demonstrate the compliance with the relevant national or sectoral sustainability-related strategies, ‘white papers’, regulations, targets or indicators.

4.4.1.4 Integration of SEA follow-up with existing (monitoring) arrangements

The SEA literature stresses the importance of anchoring follow-up to the existing and relevant arrangements and sources of information (Chapter 2). This ‘exterior’ integration, as opposed to interior integration of SEA-follow-up with a PPP, should be established to link SEA follow-up activities with the existing national/regional/local monitoring, evaluation, auditing, etc. systems. The benefits may include making SEA follow-up less time-consuming and more cost-efficient. The problems arising from this kind of integration relate to the identification of appropriate information sources to be used for SEA follow-up, the incompatibility of different formats and technical solutions deployed in different e.g., monitoring systems even within one jurisdiction (Chapter 2). Also, the goals of data source arrangements and existing monitoring may differ from those of the planned SEA follow-up and thus use different methodologies.

¹⁰¹ E.g., such a problem in the institutional and legislative setting of Italy has been identified as a barrier to the successful implementation of SEA (e.g., Gazzola *et al.* 2004).

Useful directions for integrating SEA follow-up (monitoring) with both a PPP delivery and existing information sources can be found in some SEA or EA guidance. For example, the Guidelines for the EU SEA Directive suggest that:

“Data collected under other EU legislation (e.g. Water Framework Directive 2000/60/EC, IPPC Directive 96/61/EC) may be used for monitoring...provided that they are relevant for the respective plan or programme and its environmental effects” (EC 2003,46)¹⁰².

The organisation and degree of applicability of ‘exterior’ integration cannot be defined in general terms. However, its existence is important and the opportunities for establishing it should be explored on a case-to-case basis.

4.4.1.5 Incorporation of SEA follow-up results in revised, updated or new strategies including provisions for adaptive planning

The existence of provisions and mechanisms for incorporating the results of SEA follow-up in revised, updated, or new strategies (and their SEAs) can be viewed as a precondition for its long-run effectiveness. Continuity in considering SEA follow-up results may be better assured if the SEA follow-up components are to a larger degree integrated with PPP implementation. If SEA follow-up is conducted as a more separate step-wise process, the feedback loop and the effect for the future actions will be weaker and may vanish. In addition, there is a danger that changes in political regime may cause a termination of certain policies or development of others. New initiatives would need to address the similar, if not the same, issues that have triggered the older strategies. On the one hand, the new regime may seek to promote its new ‘effective’ and ‘popular’ initiatives and disregard the lessons, including SEA follow-up, of the ‘unsuccessful’ older strategies. Alternatively, it can identify new strategic priorities and seek for new solutions. In any case, storing and transferring the information gained through SEA follow-up should be secured, and a formal opportunity for a continuous utilisation of SEA follow-up results should exist.

The feature of adaptiveness (or adaptability) is essential for allowing strategies and SEA follow-up to accept the feedback, react to changes, and revise the follow-up schemes. The institutional theory stresses that “if an institutional arrangement is too inflexible to cope with...[ever-changing]...conditions, it is unlikely to prosper” (Ostrom 1999,49). Within the SEA follow-up framework, the evaluation of monitoring findings should create a platform for

¹⁰² The IMPEL Project on Implementing Article 10 of the SEA Directive 2001/42/EC highlights the same point on the integration of SEA monitoring with the existing monitoring schemes (Barth & Fuder 2002,10).

flexible decision-making. The decision-making and planning style should provide for timely and adequate adjustments of a strategy to unexpectedness in a specific and dynamic context.

Thus, there are many ways, in which the context variables influence SEA follow-up, including its existence, design and objectives, ‘exterior’ integration, efficiency and utility.

4.5 Summary and conclusions

The evaluative and explanatory SEA follow-up framework was conceptualised in the process, structure, and context dimensions. Within each, variables were proposed and described. They basically covered such influential areas for SEA follow-up as methods/design of follow-up activities, interior integration, cooperation and coordination, spatial and temporal position and adaptability of SEA follow-up; existing policy and planning frameworks, formal provisions, exterior integration, political commitment to SEA and follow-up, incorporation of follow-up results in planning cycle; ownership, commitment, and accountability, transparency for SEA follow-up, resources, networking and capacity-building. Every variable addressed a number of closely interlinked questions aimed to facilitate the empirical SEA follow-up investigation (Chapter 6); at the same time, the variables were designed to be broad enough to accommodate other themes that may recurrently emerge during empirical research.

The next Chapter 5 introduces the analysis of an electronic survey of SEA follow-up that looks into the selected questions related to the current SEA follow-up practice and derived from the theoretical analysis and SEA follow-up framework.

CHAPTER 5. SEA FOLLOW-UP SURVEY ANALYSIS

This Chapter analyses the data from a two-round electronic survey of SEA follow-up¹⁰³ (see Chapter 3 for details), while leaving the interpretation and explanation of the findings for the discussion and synthesis parts of the research (Chapter 8). It examines the SEA follow-up rates; demonstrates the geographical spread of those SEA follow-up cases, about which respondents have opted to share more detailed information regarding i) how the need for SEA follow-up was established, ii) which SEA follow-up activities were envisioned, and iii) which SEA follow-up activities were implemented. The Chapter presents the opinions on the obstacles to and benefits of SEA follow-up and their significance and looks into the state of development of, and relationship between, SEA follow-up theory and practice. It concludes with a summary of the survey's analysis findings.

5.1 The rates of SEAs with follow-up

The 67 respondents had a diverse background of engagement in SEA: around 60% of them participated in less than five SEA cases; about one third of them participated in five to 20 SEA cases and the remaining 9% took part in 20 or more SEAs (Figure 5:1).

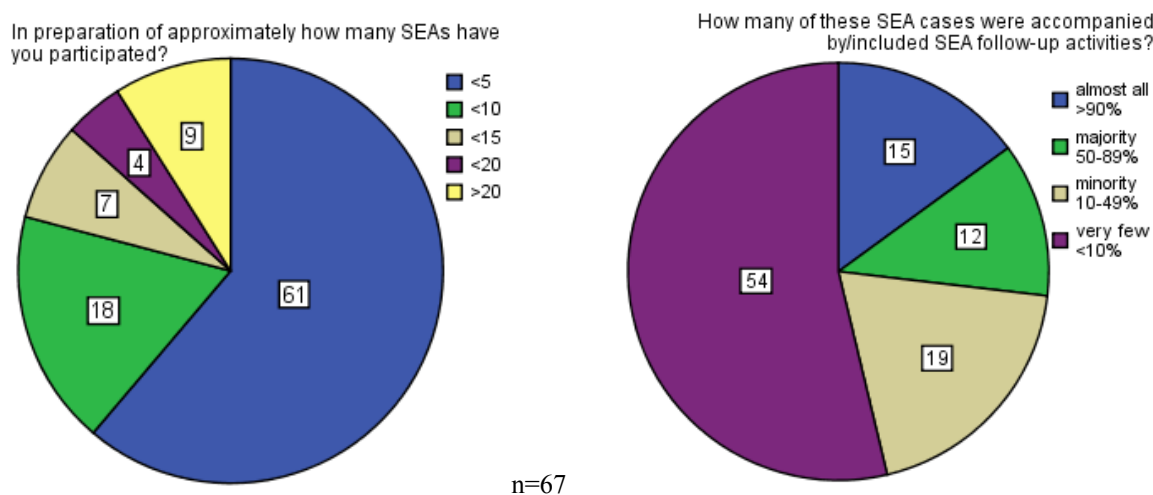


Figure 5:1 Participation of the respondents in SEA cases (%) and SEA cases with some follow-up activities (%)

Slightly more than a half of the respondents indicated that *very few* SEAs, in which they participated, included or were accompanied by some follow-up measures (Figure 5:1). About

¹⁰³ It contributes to Task 1b), Obj. 1: examine the current SEA follow-up discourse and practice... and Task 3c), Obj. 3: validate the findings of case analysis by synthesising them with the survey's and theoretical findings. The survey findings also facilitate Task 3d): develop recommendations for improving the SEA follow-up application.

15% of the respondents stated that that *almost all* SEAs, which they took part in, contained or were accompanied by some follow-up.

A question is whether there is any association between the number of SEA cases and the number of follow-up. To explore this, Gamma and Kendall's tau c (for any shape table) tests for ordinal values with few categories have been conducted. They have revealed a '*moderate*' *positive relationship between the number of SEAs and that of follow-up* (the interpretation of the degrees of relationships is based on de Vaus (2002,259)). In other words, *follow-up occurrence increases with the increasing number of SEAs* (Gamma: 0.541 & Kendall's tau c: 0.309). The extended cross-tabulation also shows that *none of the 6 respondents with the most SEA experience (>20) mentioned that they had very few occurrences of follow-up and the fewest number of follow-up cases was reported by the respondents with the least experience (<5 cases)*.

Altogether the 67 respondents could have been engaged in 316 SEAs at minimum and 549 SEAs at maximum (if >20 is assumed to be 25). Given these 'total' numbers of SEAs, the calculation shows that the total SEA follow-up rate ranges from 30% (a maximum number of SEAs & a minimal number of follow-up) to 60% (a minimum number of SEAs & a maximum number of follow-up). This might be seen as a surprisingly high SEA follow-up rate; however, it reflects the cases of *envisioning* rather than *conducting* follow-up and envisioning at least *some follow-up* activities, rather than a more or less comprehensive SEA follow-up.

The calculated high rates of including some follow-up activities in SEAs have not made the task of identifying the *researchable* cases of actually implemented SEA follow-up easier. Rather, they highlighted the gap between inspirations to conduct follow-up and its limited practice in reality. This has become especially evident during the continuous 9-months long search for SEA follow-up cases for this research (see Chapter 3).

5.2 The geographical spread of SEA follow-up

The survey asked the respondents to share their follow-up experiences within a particular SEA of their choice. From their multi-country experience, each of 44 respondents selected one SEA case and indicated its location. Overall, SEA follow-up cases were reported from the following 33 countries: 19 developed¹⁰⁴ - the UK, the Netherlands, Italy, Australia, Slovenia,

¹⁰⁴ The division is based on the International Monetary Fund's World Economic Outlook Database (IMF 2008).

Norway, France, Scotland¹⁰⁵, Germany, Denmark, Canada, the USA, Spain, Austria, Sweden, Ireland, Greece, Brazil, and Taiwan; and 14 developing- China, Tanzania, Kosovo, South Africa, Nigeria, Peru, Pakistan, Bolivia, Ghana, Zambia, Kenya, Cameroon, Sri Lanka, and Vietnam. The coverage of countries is interesting in that it is only slightly skewed towards the SEA experience in developed countries and gives a relatively good representation of developing ones¹⁰⁶. However, SEAs in developing countries is not a common practice, rather they are promoted and financed by international organisations with higher requirements for SEA and follow-up than the domestic ones, e.g., the WB, OECD, UNDP. As some respondents noted their SEA cases were Pilot case(s) either externally financed or externally guided.

5.3 Screening for SEA follow-up

The respondents were offered to choose one or several factors that established the need for SEA follow-up in their cases: SEA follow-up was required by i) legislation; ii) the SEA program or Terms of Reference (ToR); iii) consultations or analysis during SEA (ad hoc); and iv) approval conditions.

The legal requirements and ad hoc arrangements for establishing the need for some SEA follow-up activities prevailed in the cases reported (21 and 17 cumulative counts respectively, Figure 5:2). Those were closely followed by the SEA program/ToR requirements with the approval conditions having scored the least.

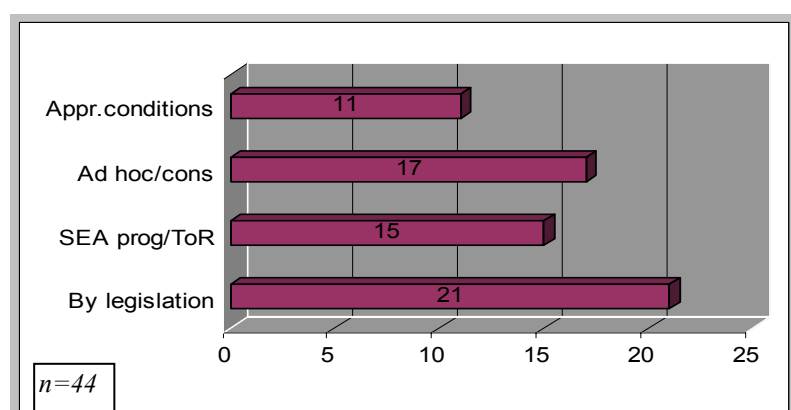


Figure 5:2 Screening for SEA follow-up (cumulative counts incl. several options per country)

¹⁰⁵ Scotland and Taiwan are considered 'developed countries' separately from the UK and China, according to both the formal division and different SEA/EA legislation/system in place.

¹⁰⁶ The SEA literature is dominated by cases and authors from developed countries (e.g., Gazzola *et al.* 2004). This tendency is less pronounced in EIA follow-up, research and practice of which has flourished in developing countries over the last 5-8 years.

From the background analytical data (available from the author upon request), it can be observed that:

- legal requirements are often accompanied by SEA follow-up requirements in the approval conditions (8 occurrences);
- there is only one case of approval conditions requiring SEA follow-up reported; and
- in the absence of legal provisions, SEA program/ToR requirements *and/or* ad hoc and consultation arrangements determined the need for SEA follow-up in around 45% of cases (19 occurrences).

A striking observation was that the respondents named different SEA follow-up triggers for cases in the same countries. Different reasons might be behind this given that the respondents are competent SEA specialist, e.g., different formal requirements for follow-up at provincial or federal level. Within this survey, it is impossible to judge about the actual causes of in-country differences without knowing the national contexts.

5.4 Which SEA follow-up activities were envisaged

Exploring the survey data with regard to the extent to which SEA follow-up design considered certain follow-up activities reveals that:

- Scoping has the highest frequency among the non-envisaged elements of SEA follow-up (Figure 5:3). It is notable that this value of scoping is almost equally distributed across the categories from ‘not envisioned’ to ‘not sure’;

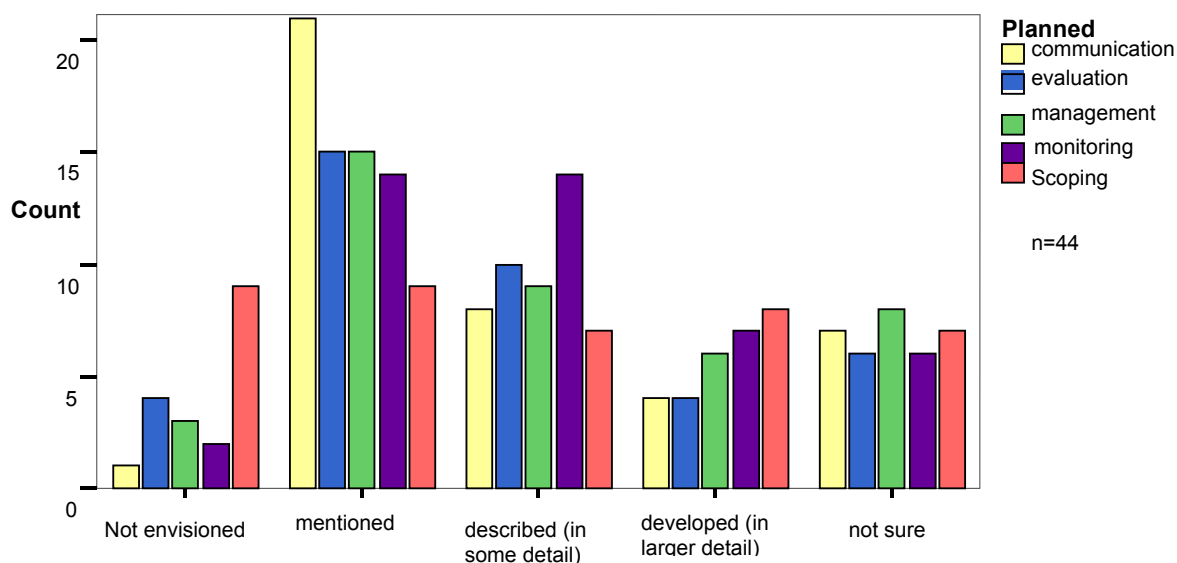


Figure 5:3 Extent to which SEA follow-up elements were envisioned

- All SEA follow-up elements received the highest scores as ‘mentioned’ (Figure 5:3). Among them, SEA follow-up communication stood out as it was envisaged and ‘mentioned’ most frequently. Interestingly, communication, evaluation and management were mentioned more frequently than monitoring;
- Monitoring scored the highest in the ‘described in some detail’ category. It was followed by SEA follow-up evaluation and management.
- Scoping was more often developed in larger detail than other SEA follow-up elements, followed by monitoring.
- Interestingly, management was ‘developed in larger detail’ more often than evaluation and communication, meanwhile the SEA literature hardly pays it enough attention, especially compared to monitoring and evaluation;
- There were quite a big number of ‘unsure’ answers from the respondents, which in percent ratio scored nearly equally for all SEA follow-up elements.

Overall, one impressing observation of this part of the survey was that **all** elements of SEA follow-up were, at the very least, mentioned in SEA and/or related documentation.

5.5 Which SEA follow-up activities were implemented

The following observations have been made regarding the extent to which the specified SEA follow-up activities were implemented (Figure 5:4):

- Scoping in SEA follow-up obtained the highest ‘non-implementation’ score (recall that it also had the highest ‘not envisaged’ score). This is followed by evaluation as the second top activity among both the ‘not implemented’ and ‘not envisioned’ SEA follow-up activities;
- Communication was not only most often ‘mentioned’, but also most often ‘implemented to some degree’ and it was both least ‘not envisioned’ and ‘not implemented’;
- In both the ‘mentioned’ and ‘implemented to some degree’ categories communication is followed by follow-up management and monitoring;
- Surprisingly, management is at the top of the ‘implemented satisfactorily’ category, while it was only the third among the ‘developed in some detail’.
- Scoping was most often ‘implemented to a larger degree’ and it was also most often ‘developed in larger detail’. Scoping is closely followed by monitoring in both ‘implemented to a larger degree’ and ‘developed in larger detail’ categories.
- Management scored higher in the ‘implemented to a larger degree’ than in the ‘developed in larger detail’ category.

➤ The share of ‘not sure’ answers for SEA follow-up implementation is higher than for follow-up design (Figure 5:4).

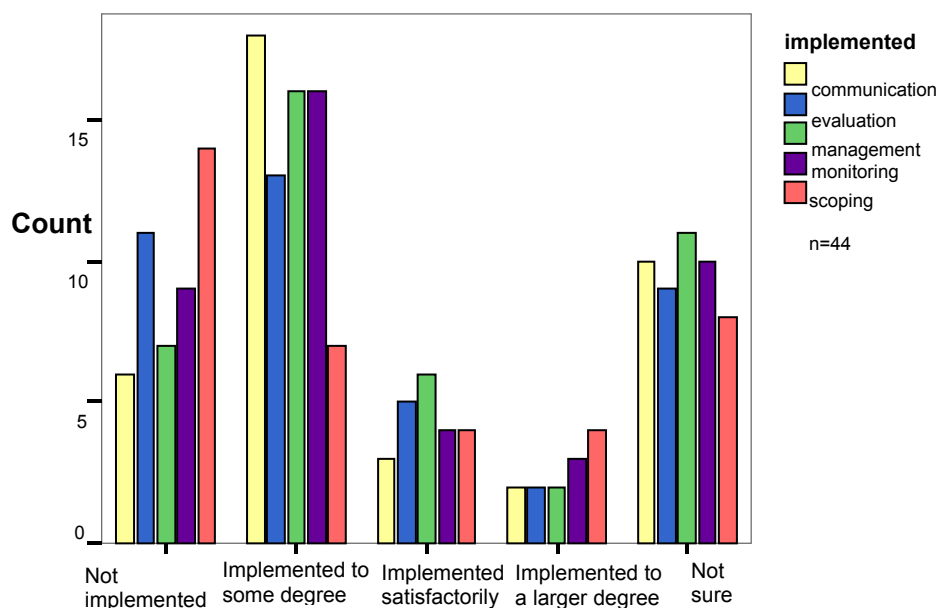


Figure 5:4 Extent to which SEA follow-up elements were implemented

The survey data disclosed the situations when some SEA follow-up elements were planned only ‘in some detail’ but implemented ‘to a larger degree’, e.g., monitoring in a Swedish case was only ‘mentioned’, but it was implemented to a larger degree. The opposite cases were more frequent, when the SEA follow-up elements were planned but not implemented to the degree planned. In some situations when SEA follow-up was envisioned as it was required so by consultation/law/approval conditions, it was never implemented (e.g., Kosovo, Zambia). Thus, a question arose whether there is a correlation between the extent to which follow-up activities are envisioned and implemented.

It was decided to look for correlations between the envisioned and implemented SEA follow-up elements. A bivariate Spearman’s test was used for testing for associations and Gamma and Kendall’s tau b & c tests were used for checking the significance, strength, and direction of these. The obtained correlation and significance coefficients show that there is:

- a *weak positive relationship* between the categories of envisioned and implemented SEA follow-up *scoping* and between those of follow-up *communication*;
- *no relationship* between the categories of envisioned and implemented *monitoring* and between those of *evaluation*; and
- a *very weak positive relationship* between the categories of envisioned and implemented follow-up *management*.

The survey highlighted the phenomenon of divided responsibilities and narrow obligations among the actors. Some respondents, for instance, were not aware whether SEA follow-up components were implemented even though they indicated that those were envisioned.

5.6 Types of obstacles to SEA follow-up

The survey data show that three types of obstacles, namely the lack of clear guidelines & methods, institutional commitment, and resources together constitute ‘significant’ and ‘average’ problems in 70-90% of cases cumulatively (Figure 5:5). For the lack of legal/formal provisions, the cumulative score in the average and significant obstacle categories appeared to be less, ca 60%, which indicates that this problem is viewed as less significant than others.

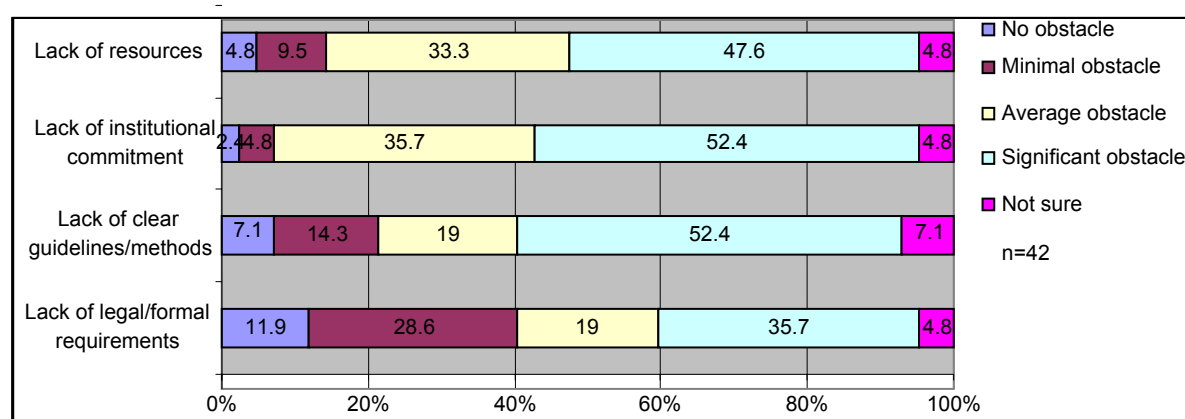


Figure 5:5 Obstacles to SEA follow-up implementation

All four obstacles to SEA follow-up proved to be perceived as ‘significant’, as they scored the highest ratio in this category calculated per obstacle (Figure 5:5). Yet, *the most significant obstacles appeared to be the lack of clear guidelines & methods and the lack of institutional commitment. The respondents identified the lack of resources as a slightly less significant problem and the lack of legal requirements as the least significant obstacle.*

The respondents specified other problems to SEA follow-up, that is, “abundance of guidelines that make the process too prescriptive and off-putting. Output is a significantly lengthy report, which no one will wish to read”, “lack of capacities for training and understanding, specific to the practical policy presentation”, “confusion in follow-up. Some see EIA (or SEA) as follow-up of SEA, which subsequently influences the scope of the EIA follow-up decisions”, “general ignorance towards the importance of follow-up”, and “confusion in definition of

SEA. Some see it as applicable only for policy analysis and consequently confusion about a need for follow-up”¹⁰⁷.

5.7 Benefits of SEA follow-up

The survey showed that five benefits, i.e. capacity-building, links inside & outside of a PPP, open/transparent communication & cooperation, learning & knowledge, and strategy control were considered significant, strongly significant and very significant in around 74-85% of cases (Figure 5:6). Two remaining benefits, namely i.e. flexible/adaptive decision-making and interest/credibility via informal communication had lower cumulative score for these three significant categories. Further observations about the SEA follow-up benefits are as follows:

➤ In the ‘very significant’ category, open/transparent communication & cooperation was the highest-scored benefit. It was followed by links inside and outside of a PPP and capacity-building. Surprisingly, flexible & adaptive decision-making scored the least in this category.

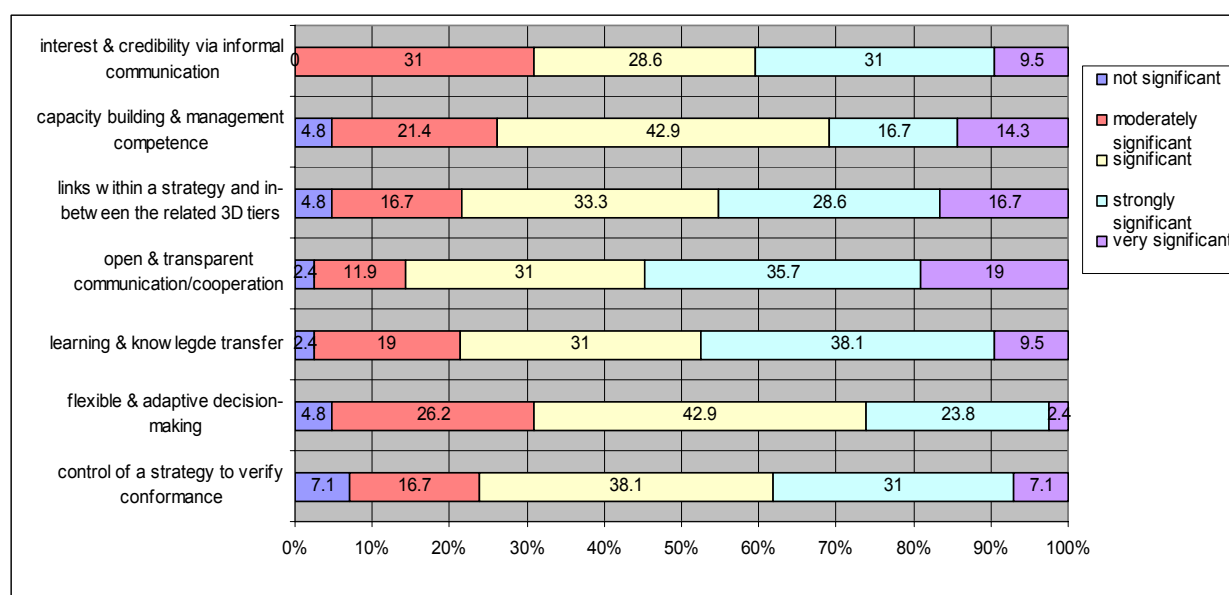


Figure 5:6 Benefits of SEA follow-up (n=42)

➤ Two benefits, learning and knowledge transfer and open/transparent communication and cooperation scored the highest in the ‘strongly significant’ category (38 and 35%). They were followed by such benefits as control of a strategy and informal communication (31%);

¹⁰⁷ These problems are interpreted according to the author’s understanding in synthesis Chapter 8.

➤ In terms of the highest scores within the benefit, four benefits - control of a strategy, flexible & adaptive decision-making, links inside and outside of a strategy, and capacity-building- demonstrated this in the ‘significant’ category;

➤ Interest and credibility via informal communication was the only benefit *not indicated* as ‘not significant’. The highest score in this category was received by the ‘control of a strategy’ benefit (7%). It was followed by three benefits: capacity-building, links, and flexible/adaptive decision-making sharing an equal rate of ‘not significant’ answers (ca. 5%).

The respondents indicated two additional ‘significant’ benefits of SEA follow-up, namely political commitment: the SEA and its follow-up is important for the political game between parties and different interests and “ultimately the on-the-ground resources [will be] benefited” via SEA follow-up, which is the objective of the SEA in the first place.

5.8 *Current state of SEA follow-up theory and practice and the relationship between them*

The opinions about the current state of SEA follow-up theory and practice were rather similarly distributed (see the pyramid shapes, [Figure 5:7](#)). The majority of the survey respondents indicated that the SEA follow-up theory and practice and the correspondence between them were not developed and somewhat developed. Particularly, theory was not developed and somewhat developed in around 84% of cases; in case of practice and the theory-practice correspondence this occurred in around 93% of cases ([Figure 5:7](#)).

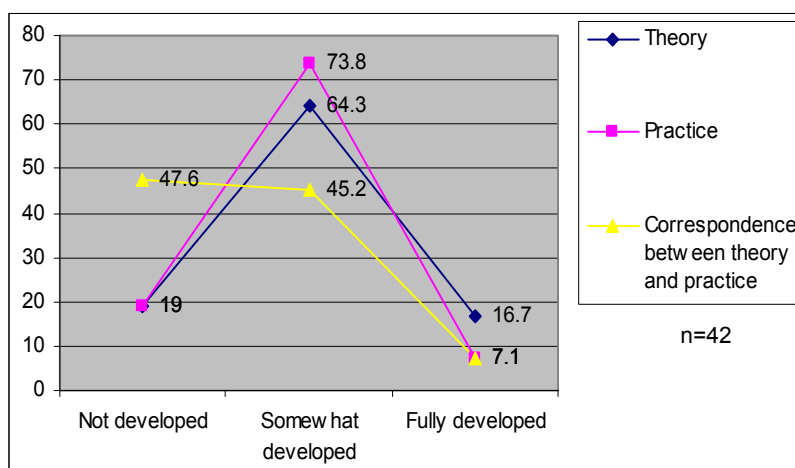


Figure 5:7 Opinions about the state of and relationship between SEA follow-up theory and practice (%)

A number of observations can be made here:

➤ The opinions about the correspondence between the SEA follow-up theory and practice split nearly equally between the ‘not developed’ and ‘somewhat developed’ categories

(Figure 5:7). In the former category, the theory-practice consistency scored the highest within this variable as well as across the variables.

➤ In ‘somewhat developed’ category, practice of SEA follow-up obtained the highest score both within and across the variables (ca. 74%). SEA follow-up theory was considered ‘somewhat developed’ in ca. 64% of cases, which was the highest for this variable.

➤ Notably, around 17% of the respondents thought that theory of SEA follow-up was ‘fully developed’, while practice and practice-theory correspondence were behind (7%).

5.9 Conclusions

The rate of *envisioning* SEA follow-up ranges from 30% to 60%. A moderate positive correlation has been identified between the number of SEAs and that of follow-up.

The respondents opted to share their experiences on SEA cases from 33 countries. Surprisingly, only a slight skewing towards developed countries was observed.

The survey showed that while the formal requirements were the greater trigger, in their absence, SEA program/ToR requirements *and/or* ad hoc arrangements determined the need for SEA follow-up in around 45% of cases.

Regarding the extent of *envisioning* SEA follow-up elements, communication was most frequently mentioned; monitoring was most frequently described in some detail; scoping was most often developed in larger degree and management received most ‘not sure’ responses.

As to the implementation of SEA follow-up activities, communication was most frequently implemented to some degree; surprisingly, management, which was often barely envisioned when designing SEA follow-up was reported as most often implemented satisfactorily; scoping was most frequently ‘implemented to a larger degree’, while at the same time it was most often ‘not implemented’; and management scored the highest ‘not sure’ response rate.

Statistical tests for associations between the extent to which SEA follow-up elements were *envisioned* and *implemented* revealed a *weak positive relationship* for *communication* and *scoping*; *no relationship* for *monitoring* and *evaluation*; and a *very weak positive relationship* for *management*.

Among the obstacles to SEA follow-up, the most significant ones appeared to be the lack of clear guidelines/methods and of institutional commitment. The respondents named other barriers such as a general ignorance about follow-up, abundance of too prescriptive and off-putting guidelines, confusion about SEA definition.

The survey showed that five out of seven proposed benefits, namely capacity-building, links within and outside of a strategy, open communication & cooperation, learning and knowledge, and strategy control were considered significant, strongly significant and very significant in approximately 74-85% of cases.

The majority of the survey respondents indicated that SEA follow-up theory and practice and the correspondence between them were either not developed or only somewhat developed.

CHAPTER 6. INDIVIDUAL CASE STUDIES ANALYSIS

Chapter 6 presents the summaries of the descriptive within-case analysis of six case studies according to the evaluative and explanatory SEA follow-up framework¹⁰⁸. The complete version of the analysis is found in [Appendix I](#). This Chapter first analyses SEA follow-up in four local transport strategies in the Merseyside and Lancashire counties, UK and then in a Forest Management Plan in Saskatchewan and Core Area Sector Plan in the National Capital Area of Canada. It ends with a short summary.

6.1 Analysis of cases in the UK

This section summarises the analyses of local transport strategies in Merseyside ('Pilot' case 1) and Lancashire (cases 2, 3 and 4) as per the SEA follow-up framework dimensions and variables. It first presents the backgrounds to the cases and then examines the SEA follow-up context in the two counties simultaneously. Then, it looks into the process and structural dimensions first for Merseyside and then for Lancashire. The analysis of each dimension contains a table with grades assigned to SEA follow-up variables (for the detailed analysis see [Appendix I](#); for the explanations of grades and decision-making guidelines see Chapter 3).

6.1.1 Background to Case Studies 1 to 4: SEA follow-up in Transport Strategies of Merseyside and Lancashire, North West England

Both Merseyside and Lancashire are located in the North West Region of the UK ([Figure 6:1](#)). It encompasses the five sub-regions: Lancashire, Chester, Cumbria, the metropolitan area of Greater Manchester and Merseyside. The Region lies at the intersection of two internationally important transport corridors: the north-south corridor that links Scotland to Europe via the Channel Tunnel and ports in East and South East England and the west-east corridor, known as the North European Trade Axis, that links Ireland through Liverpool and other Irish Sea ports across the Pennines to Europe via the North Sea and Baltic Sea ports (NWRA 2006,204). The region's main international gateways are Manchester Airport, Liverpool John Lennon Airport and the Port of Liverpool (NWRA 2006). During the 1980s and 1990s the North West economy suffered from a decline, underperformance, and

¹⁰⁸ This is to achieve Task a), Objective 3 of this research: Examine in detail the application of SEA follow-up during the implementation of several strategic initiatives as per the framework...(Table 1-1, Chapter 1)

restructuring (RSS 2008). Presently, the Region strives for economic regeneration, the higher competitiveness, safer transport system, higher social inclusion, and better environment.



Figure 6:1 North West England

Source: *The North West of England* <http://www.picturesofengland.com/mapofengland/north-west-map.html>

6.1.1.1 Case 1: Merseyside Transport Strategies

The Merseyside sub-region is located in the south-western part of the North West Region (Figure 6:1) and encompasses five districts, namely St. Helens, Wirral, Knowsley, Liverpool, and Sefton. To develop a comprehensive program of transport improvements across the sub-region the five District Councils formed a partnership with Merseytravel, a public transport-coordinating body consisting of two entities: Merseyside Passenger Transport Authority and Merseyside Passenger Transport Executive, of which the former has the policy-making and publicly accountable function and the latter is the executive entity (Finn 2005). The result of their joint work was a Merseyside Integrated Travel Strategy (MerITS, 1993), which formed “the strategic basis for the annual transport packages [for bidding for government funding] and set objectives and targets...for a 20-year strategic period from 1991 to 2011” (Fischer 2004b,330). In 1998, Liverpool Health Authority commissioned the Liverpool Public Health Observatory to undertake a prospective HIA of the 1997 MerITS package bid (Fleeman & Scott-Samual 2000,268) (Table 6-1). Thus, the MerITS underwent a forward-looking ex-post

HIA, which “given the absence of prior experience of HIAs of strategies”, built on the approaches of project HIA, SEA and policy analysis (Fleeman & Scott-Samual 2000,268).

Table 6-1 Merseyside transport strategies

Strategy	Years	Assessment
Merseyside Integrated Transport Strategy	1993-2011 (stopped in 2000)	HIA (1998)
Local Transport Plan 1	2000/01- 2005/06	HIA (2000)
Local Transport Plan 2	2006/07-2010/11	SEA & HIA (2005-2006)

NB: the examination focus is marked in grey.

When in 2000, the UK Government devised a new Local Transport Plan (LTP) framework for transport planning (see [Appendix I](#)) the Merseyside Partnership in the same composition prepared the first LTP (LTP1, 2000/01-2005/06). The LTP1 underwent a voluntary HIA and specified some measures for monitoring and evaluation of health impacts and mandatory environmental indicators as per the national requirements. The implementation of the LTP1 included follow-up to HIA, which was reflected in the LTP1 Annual Progress Reports and the HIA Review of 2004. For the second LTP (LTP2, 2006/07-2010/11) both a statutory SEA (according to the new SEA regulations) and a locally commissioned HIA (following the best practice of Merseyside transport planning) were conducted. Thus, the first 2007 Annual Progress Report on the LTP2 became the first ‘formal’ reporting point of SEA & HIA follow-up. Drawing on the MerITS and LTP1, the LTP2 constitutes a Case Study 1 of this Dissertation, which looks into its environmental, health, and social-economic follow-up.

6.1.1.2 Cases 2, 3 and 4: Lancashire Country Transport Strategies

Differently from the metropolitan Merseyside, to which it borders to the north ([Figure 6:1](#)), the Lancashire County includes twelve districts¹⁰⁹ with both densely populated urban areas and sparsely populated rural sprawls ([Figure 6:2](#)). Two Unitary Authorities of Blackpool¹¹⁰ and Blackburn with Darwen¹¹¹ are located in Lancashire country, but have been independent self-governing areas since 1998. A strategic vision for transport planning for all three

¹⁰⁹ Namely, Lancaster, Ribble Valley, Pendle, Burnley, Hyndburn, Rossendale, Preston, Chorley, West Lancashire, South Ribble, Fylde, and Wyre.

¹¹⁰ Blackpool is a highly urbanised coastal town-resort and the 2nd densest urban area in the UK after London with the population of 142,700 (2004) (10% of the Lancashire population) (BBC 2006a). It is the 6th most deprived local authority in the NW with only 34% of its working age population employed compared to 41% nationally (BBC 2006a).

¹¹¹ This Unitary District has a population of 140,200 residents (2004) concentrated in the towns of Blackburn and Darwen, which grew quickly in the 19th century with development of the textile industry (BDBC&C 2006b). The Borough is ranked the 45th most deprived (out of 354 districts) in the UK (BDBC&C 2006b).

authorities was set out in the Joint Lancashire Structure Plan 2001-2016 (JLSP, adopted in 2005 and replaced in 2008¹¹²).



Figure 6:2 Lancashire Districts

Source: Lancashire County Council, www.lancashire.gov.uk

The JLSP as well as its predecessor Structure Plan 1991-2006 (adopted in 1997) underwent a SA including that of transport options and published annual monitoring reports. Each of the three authorities produced two sets of LTPs in 2000 and 2006 correspondingly. The first-round LTPs of the LCC, Blackpool and Blackburn with Darwen were not environmentally assessed (Table 6-2). However, they considered the environmental strategies of the Districts ; also the LCC LTP1 contained some features of SEA/EIA, namely a CO2 emissions appraisal (LCC 2006b). The second LTPs were subject to SEA/SAs as per the new regulations and draw on the first LTPs and their monitoring reports (see Appendix I).

The 2nd LTPs of the LCC and Borough Councils of Blackpool and Blackburn with Darwen constitute Cases 2, 3 and 4 of this Dissertation (Table 6-2). Given their common roots in transport planning and similar experience with SA during the JLSP, the research intended to examine not only their SEA follow-up practice, but also whether their follow-up programs still had links across authorities and, if yes, how this worked in a broader context (see Chapter 3, Table 3-6).

¹¹² The JLSP was a regional strategy, which provided a broad planning framework for the county. It replaced the Lancashire Structure Plan (1991-2006), which operated since 1997. The JLSP, except Policy 29, was replaced by the Regional Spatial Strategy (RSS) in September 2008 (LCC 2009, also footnote 10 in the Planning and Compulsory Purchase Act, 2004).

Table 6-2 Transport strategies in Lancashire

Authority	Strategy	Years	Assessment
LCC	LTP 1	2000/01- 2005/06	C02 emissions appraisal
	LTP 2	2006/07-2010/11	SA/SEA
Blackburn with Darwen Borough Council	LTP 1	2000/01- 2005/06	-
	LTP 2	2006/07-2010/11	SA (SEA)
Blackpool Borough Council	LTP 1	2000/01- 2005/06	-
	LTP 2	2006/07-2010/11	SEA (SA)
Joint Authorities	Lancashire Structure Plan	1991-2006 (adopted 1997)	SA (1997)
	Joint LSP	2001-2016 (adopted 2005)	SA (2004)

NB: the research focuses are marked in grey.

The next sections examine Merseyside and Lancashire transport strategies according to the SEA follow-up framework's dimensions: the context, process, and structure.

6.1.2 Context dimension of SEA follow-up in Merseyside and Lancashire

The context SEA follow-up dimension includes 10 variables (Chapter 4). The research has found that the contexts for the Merseyside and Lancashire cases in terms of the proposed variables are quite similar; therefore, their descriptive analysis is presented in parallel and summarised in this section. In case there are differences in the context variables between the counties/districts, they are examined and explained separately (Table 4-3, Appendix I). The analysis and grading (Table 4-3) are based on the documentary evidence, interviews and consultations (for the explanation of grading and decision-making guidelines see Chapter 3).

Table 6-3 Performance/state of the SEA follow-up context variables for the Merseyside and Lancashire Transport Strategies

Context dimension variables	Merseyside LTPs	Lancashire LTPs	Blackpool LTPs	Blackburn with Darwen LTPs
Existing planning and policy-making practice and the SEA system incl.:		B		
➤ Planning type and policy framework for SEA/follow-up				
➤ Political commitment to SEA/follow-up and influence		A		
➤ Socio-economic preconditions for SEA/follow-up		B		
Formal provisions for SEA & follow-up incl.:		A		
➤ Legislation and regulations		A		
➤ Manuals, guidelines & guidance for SEA/SA/SIA		A		
➤ Enforcement and compliance mechanisms		C		
➤ Formal distribution of responsibilities		B		
Formal compliance with sustainability principles (in the national/sectoral SD strategies/white papers, etc.)		A		

Context dimension variables	Merseyside LTPs	Lancashire LTPs	Blackpool LTPs	Blackburn with Darwen LTPs
Possibility to incorporate the SEA follow-up results in revised/updated/ new strategies/planning cycles incl. provisions for adaptive planning & SEA follow-up system	A			
Integration of SEA follow-up with existing monitoring systems	B			
	‘Exterior’ integration is becoming more coherent and organised after 2004-2005 and during the second LTPs			
	Efficiency-driven trials to integrate existing sources with follow-up to the HIA & MerITS in the 1990s; the LTP1 was more developed, but only during the LTP2 the integration has become more systematic.	The Joint Authorities attempted to integrate the LTPs with the existing monitoring potential over the LTP1s. The SEA/SAs for the LTP2s created the conditions for a more coherently integrated monitoring framework.		

There is a hierarchical planning system in the UK from national and regional to local strategies with a certain trend towards decentralization of decision-making power. Since the 1990s, SA and environmental appraisal have been practised in the UK reflecting a strong political commitment to strategic EAs. However, often changing planning and SA/SEA policy framework including guidance and many reforms of planning bodies at all administration levels create confusion in planning authorities (B). In 2004, the traditional commitment to SA and HIA was reinforced by the regulations transposing the SEA Directive’s requirements to the national legislation (A).

Due to socio-economic conditions in Merseyside and Lancashire, the LTPs’ performance in terms of economic growth, deprivation, social inclusion, poverty, unemployment and other substantial concerns is sometimes prioritised over environmental performance. Nonetheless, resources for SEA/SA should be secured as per regulations and guidance. However, they are often scarce. Public engagement is more intensive during the SEA/HIA preparation and less intensive during follow-up partially due to the local population's low interest in and awareness of environmental issues (B).

With regards to formal provisions for SEA and follow-up, extensive SEA/SA and planning guidance and regulations set out a solid basis for developing monitoring and follow-up schemes for planning initiatives, including LTPs. E.g., the 2004 Regulations for EA of Plans and Programmes and the Planning and Compulsory Purchase Act of 2004 require SA/SEA and SA/SEA monitoring; numerous guidance are available on SEA/SA as well as on how to integrate SA, SEA, NATA and establish monitoring frameworks for local and regional (transport) plans (As for 'legislation' and 'manuals/guidance'). Despite the existing guidance

and legal provisions for SA/SEA and monitoring, there are no clear formal provisions for enforcement. Steps are being taken to strengthen the so-far weak enforcement of the SEA/SA system in Merseyside and Lancashire (C). The statutory and guidance documents broadly outline the distribution of roles and responsibilities of the actors involved in the SEA/SA, follow-up and LTP processes (B). Namely, the responsible authorities are obliged to execute monitoring and reporting for a strategy and its SEA/SA and to specify monitoring schemes including schedules and responsible persons that need to be tailored to a specific initiative.

Since the early 1990s, the UK Sustainability Strategy (1994), sectoral sustainability strategies, white/green governmental papers, national and regional planning guidance and strategies, and the sequence of guidance on SA and EA created a tradition of incorporating sustainability in planning and EAs/HIAs/SAs/SEAs. Sustainability has been one of the key themes of the MerITS, LTP1 and LTP2 and Lancashire LTPs, reflected in their objectives and targets (A).

There are clear provisions in planning and SEA/SA guidance for incorporating SEA/SA follow-up results alongside those from strategies' performance monitoring in subsequent planning. The formal provisions, for instance, allow for a certain reflectivity of the LTP planning framework through minor (annual) adaptive measures or radical ones on a 5-year basis. Thus, there are favourable preconditions for the SEA/SA system and delivery processes to be adaptive and open to feedback from LTPs as per the planning and follow-up cycles (A).

The exterior integration of follow-up systems is the only variable that to some extent varies in the Mersey and Lancashire transport strategies. In Merseyside, attempts to integrate the existing sources with follow-up to HIA and MerITS took place in the 1990s due to pragmatic reasons, e.g., cost reduction. The Mersey LTP1 advanced more in this regard; yet, it was not until the LTP2 when the integration started becoming more systematic. The Joint Authorities of LCC, Blackpool and Blackburn with Darwen started integrating transport strategies' follow-up with existing monitoring potential later-during the first LTPs. The SEA/SAs for the LTP2s created conditions for a more coherently integrated monitoring framework. Overall, in both counties, exterior integration has become more coherent and organised after 2004-2005 and during the second LTPs. Presently, planning and SEA/SA guidance documents recommend setting up monitoring schemes integrated with existing monitoring systems (B).

To summarise, the strongest context aspects of SEA follow-up for one Mersey and three Lancashire LTPs are political commitment to SEA/follow-up, legislated provisions and abundant guiding documents requiring SA/SEA/follow-up, compliance of the LTP2s to sustainability principles of policy and legal frameworks and a possibility of the LTP2s and

planning system to incorporate the results of SEA follow-up in future planning (A). Less favourable conditions for SEA/follow-up exist in such areas as the existing policy framework and plan-making practice, formal distribution of responsibilities, socio-economic situation, and integration of SEA follow-up with existing monitoring systems (B). The weakest context variable is the enforcement and compliance mechanism (C).

6.1.3 Process dimension

The process SEA follow-up dimension encompasses 14 variables analysed based on the documents, interviews and consultations held in the MerseyTravel headquarters, 5 Merseyside districts, Liverpool and Preston City Councils, Lancashire County Council, Unitary districts of Blackpool and Blackburn with Darwen, local environmental groups, etc. The variables are examined and graded in terms of both the extent to which they have been envisioned and implemented, as applicable. The grading for Merseyside and Lancashire LTPs SEA follow-up process are given in [Table 6-4](#) and [Table 6-5](#) correspondingly (the explanations of grades and decision-making guidelines are found in Chapter 3).

6.1.3.1 Merseyside

The LTPs and SEA/HIA spell out clear goals and rationales of follow-up that are primarily set in a command-and-control mode. That is, the first priority to attain through follow-up is to meet international, national, and regional, and then sub-regional and local ones. Performance monitoring goals of the LTP2 are narrower than those of the original SEA/HIA. The latter are refocused to match the LTP2's ones with a limited bottom-up shaping input (B).

Table 6-4 Performance of the SEA follow-up process variables in the Merseyside LTP

Process dimension	Merseyside LTP
Statement of SEA follow-up rationales/goals for different planning tiers & decision-makers	B
Screening at the earliest stages of SEA and strategy development	A
Scoping at the earliest stages of SEA and strategy development	B
Formulation and implementation of SEA follow-up steps: types, design, methods, inter-coherence and roles:	A/B
➤ Monitoring	
➤ Evaluation	B/B
➤ Management	B/B
➤ Communication	A/A
Integration of SEA follow-up with the strategy implementation	A/A
Consistency of SEA follow-up targets and standards with those of upper, low, or horizontal strategies (explicitness of tiers)	A/A
Assurance of open stakeholder cooperation and coordination including consensus building on SEA follow-up methods/process	A/A
Adaptability of a PPP and SEA follow-up to ensure:	
➤ feedback from subsequent decision-making to the initial PPP within SEA follow-up (organisational anchoring).	B/B

Process dimension	Merseyside LTP
➤ provisions for response measures to (non)deliberate situations/external changes	B/B?
➤ revision of SEA follow-up if the contents of a PPP changes	C/C
➤ revision of a PPP if SEA follow-up reveals unexpected impacts	C/C

Devising a SEA/HIA follow-up program for the LTP2 was legally required and accomplished at the early SEA/HIA and LTP2-making stages (A). Its scope was largely determined during the scoping stage for the SEA/HIA. The SEA/HIA monitoring framework outlined the scope and coverage follow-up actions that needed to be further developed within the LTP2 delivery and monitoring framework (B).

The LTP2 performance framework and SEA/HIA follow-up contain a combination of different monitoring, evaluation and management tracks. Namely, follow-up actions include mitigation monitoring, performance monitoring, actual effects monitoring, and limitedly side-effects and conformance monitoring (see Chapter 2 & [Appendix I](#)). Methods for monitoring, data aggregation and processing are basically determined and supplemented by timescales and responsibility tables. However, for some proposed types of monitoring no concrete measures have been identified in the LTP2. The implementation of follow-up as part of the LTP delivery is constrained by some technical and resource-related factors (A/B).

Based on the above monitoring types, such evaluation tracks as impacts evaluation, goals-achievement, and performance and conformance evaluation were envisioned and are conducted. Data processing and evaluation methods and timescales are specified as well as people responsible for the first review of monitoring data, interpretation and reporting. Causality and uncertainty problems are often complained about when tracking environmental implications of the LTP1's and LTP2's actions (B/B).

The reviewed, interpreted and/or evaluated data are used for direct implementation decisions regarding activities controlled by the LTP2 and to less extent for cardinal revisions of the LTP2 (this may become more visible when the LTP2 is renewed in 2011). Thus, the LTP management scheme makes use of the monitoring data and evaluation findings for short- and longer-run decisions/actions, despite some minor practical deficiencies (B/B).

Overall, the coherence between the follow-up monitoring, evaluation and management activities is adequate. They are also linked to the follow-up communication activities, such as online forum, biannual meetings with stakeholders and the public, annual reporting to the DfT, DEFRA, posting annual reports online, website news and a webpage of the LTP Support Unit, which is used for getting continuous inputs from the public/NGOs regarding the LTP

progress and SEA/HIA follow-up activities. Additionally, the level of public participation has improved during the LTP2 e.g., the public is being involved in follow-up surveys (A/A).

In line with the national guidance, the major part of the SEA/HIA recommendations and mitigation measures were integrated into the LTP performance management. They became part of the corporate monitoring of the Partnership, which presently strives to integrate the LTPs performance monitoring with its EMS and local environmental management strategies. The SEA/HIA follow-up actions are conducted alongside the LTP delivery framework and are revised annually according to the operating cycle (A/A).

According to the planning and guidance provisions, the SEA/HIA follow-up targets and objectives are consistent with those of the lower LTP's programs/actions as well as with the preceding and subsequent horizontal and regional strategies. E.g., the envisioned SEA/SA follow-up to the RSS and its monitoring framework has explicit reference to those of the district LDFs, including the MerseyLTP2s (A/A).

Cooperation within the LTP implementers and among the Mersey Partnership and private sector, the public and other authorities was well thought through and is well implemented. A clear consensus-building process occurred during the LTP2 with a two-way approach to setting the follow-up scheme being used. The Merseytravel laid a foundation for a strong leadership¹¹³ and successfully shared this quality with other Partners, the dedicated units of which are responsible for leading and coordinating at different management levels (A/A).

The responsiveness of the LTP2 and SEA/HIA follow-up in terms of feeding back the information from subsequent decision-making to the LTP2 performs quite well at different managerial levels. This is strengthened by a rather clear-cut organisational anchoring. However, follow-up actions for the certain LTP schemes are often not translated to the wider context and thus cannot be used to adjust the programs to what is happening in the overall strategy. Therefore, while the strategic planning context of the LTPs and the delivery regime of the LTP and follow-up provides for a liaison with the subsequent planning/decisions, the feedback is not always systematically linked to the LTP2 (B/B). In terms of provisions for

¹¹³ The organisational system of the LTP proponents is quite complex and requires strong leadership and coordination. It involves various structural units in districts with their implementation practices and personal relations, external consultants and ground-level sub-contractors. Strategic planners get headlines of SEA/HIA follow-up results to use them for managerial purposes and periodically conduct auditing and evaluation of the LTP actions. They rely on operational managers, design engineers, and health and environmental officers, etc., who (internally or with external help) collect monitoring data, make initial reviews, i.e. environmental checks, and take routine adaptive management decisions within a given follow-up budget. In smaller transport units of some districts, the border between operational, mid-range and even strategic management is often blurred.

response measures to deliberate and emergent (external) changes, the adaptiveness of the LTP2 and follow-up is envisioned and actualised. As changes are frequent in day-to-day implementation, provisions were made to revise the LTP and follow-up in the light of new events. Revisions were supposed to be/are followed by corresponding changes in monitoring and management. Minor adaptive management becomes a routine practice in the MerLTP2; however, the budget year is a constraint to a timely response. So far, no significant external changes that would have changed the LTPs/follow-up have occurred (B/B).

SEA/HIA follow-up to the LTP2 is to a lesser extent able to follow the changes in the LTP. The response time needed for SEA/HIA follow-up to adapt to emergent changes in the LTPs varies depending on the length of officers' chains, levels of bureaucracy, and planning and financial cycles. Besides, getting additional funding for environmental monitoring or EA requires approval of the local politician, thus leading to a long political process (C/C).

Similarly, the reflectivity of the LTP2 in case SEA follow-up reveals unexpected effects is satisfactorily envisioned and implemented. If environmental problems are significant, the LTP actions can be modified unless they conflict with other priorities, e.g., economic growth. If 'early alarm signals' are identified through follow-up, they are reported to the relevant horizontal and upper planning levels in the districts, to the thematic networks, Coordination Group and Executive Forums. Response measures are supposed to take place respectively. However, they are delayed due to the necessary political processes or revision cycles (C/C).

Overall, the process variables of SEA/HIA follow-up in the Mersey transport strategies are envisioned and perform well in such areas as screening, communication/reporting, interior integration, open stakeholder cooperation and consensus-building, and consistency of follow-up to the related higher, lower and horizontal strategies (A & A/A). The worse performing variables are scoping, evaluation, management, provisions for response measures to deliberate (unexpected) changes, and adaptability of the LTP and follow-up in terms of considering feedback from subsequent actions (B and B/B). One only variable that was well elaborated but is performed with minor omissions is monitoring (A/B). The weakest points are the design and implementation of the mutual responsiveness of the LTP and follow-up (C/C).

6.1.3.2 Lancashire County Council LTP, Blackpool and Blackburn with Darwen

The rationales, goals and objectives of the LCC SEA follow-up were dictated top-down by the national regulations and guidance. They were largely shared by the stakeholders and implementers of the LTP2 (A, [Table 6-5](#)). The Blackpool LTP's SEA monitoring contained four explicit objectives, i.e. to determine the effectiveness of the plan, of mitigation measures,

adverse environmental effects, and prediction accuracy. The understanding of SEA follow-up rationales was linked to the stated and perceived SEA follow-up goals and shared by the stakeholders (A). The Blackburn with Darwen's SA and LTP-making were an integrated process led by the Council officers. Despite being aware of SEA follow-up goals and rationales, they did not clearly specify these in the LTP or SA monitoring proposal. Both management and operating levels of the LTP implementers, nonetheless comprehend the reasons for conducting SEA follow-up as part of the LTP monitoring and management. This understanding was underpinned by the SA monitoring rationales and follow-up goals suggested in the national regulations/guidance (B).

Table 6-5 Performance of the SEA follow-up process variables in the Lancashire LTPs

Process dimension	Lancashire LTP	Blackpool LTP	Blackburn with Darwen LTP
Statement of SEA follow-up rationales and goals for different planning tiers and decision-makers	A	A	C
Screening at the earliest stages of SEA and strategy development	A	A	A
Scoping at the earliest stages of SEA and strategy development	B	C	B
Formulation and implementation of SEA follow-up steps: types, design, methods, coherence & roles:			
➤ Monitoring	C/C	B/C	B/B
➤ Evaluation	C/C	C/C	B/B
➤ Management	C/C	C/C	B/B
➤ Communication	A/A	A/A	A/A
Integration of SEA follow-up with the strategy implementation	B/B	C/C	B/B
Consistency of SEA follow-up targets and standards with those of upper, low, or horizontal strategies (Explicit tiers)	A/A	A/A	A/A
Assurance of open stakeholder cooperation and coordination incl. consensus-building on SEA follow-up method/process	A/A	B/B	A/A
Adaptability of a PPP and SEA follow-up to ensure:			
➤ feedback from subsequent decision-making to the initial PPP within SEA follow-up (organisational anchoring)	B/B	B/B	B/B
➤ provisions for response measures to (non)deliberate situations/external changes	C/B	B/B	C/C
➤ revision of SEA follow-up if the contents of a PPP changes	C/C	C/C	B/B
➤ revision of a PPP if SEA follow-up reveals unexpected impacts	C/C	C/C	B/B

SEA follow-up was legally required, and thus 'screening' occurred early in all three authorities (As). The LanLTP2 was accompanied by the SEA process and drew upon the LTP1 progress and monitoring results. The scoping for SEA follow-up was conducted alongside the SEA scoping stage and specified the SEA monitoring issues and boundaries for further consideration in the SEA and LTP2 (B). In Blackpool, SEA monitoring issues and boundaries were defined during the scoping stage of the SEA, which commenced after the provisional LTP had been completed, but before the final version was produced (C). Scoping for the preliminary Blackburn with Darwen LTP SA monitoring framework and indicators was

accomplished during the SA scoping. The SA monitoring framework and follow-up indicators were refined in the course of scoping consultations during the SA and LTP-making (B).

Based on the goals of SEA follow-up, the LanLTP2 SEA envisioned several monitoring tracks and proposed a corresponding set of indicators. However, no explicit links were made between the significant impacts and the proposed SEA monitoring indicators. To make the inclusion of the SEA indicators in the LTP2 ‘realistic’, they were formulated in the same way as the LTP performance indicators. The LTP2 contained the performance indicators with the detailed trajectories and targets. It quite vaguely described monitoring technique per indicator and did not detail follow-up timescales and responsibilities. Nor are these found in the SEA documentation; however, the interviews suggest that these are better detailed at the District level (C/C). According to the Blackpool LTP’s SEA monitoring proposal, several types of SEA follow-up monitoring were set out to monitor ‘environmental and related change’ and ‘implementation activities’. The proposal attempted to dovetail the SEA indicators to those of the LTP performance. In doing so, it took a holistic approach to monitoring and management that considered cumulative, synergic, indirect and direct effects. However, no concrete measures were proposed for implementation. The SEA also proposed to monitor the contribution of the LTP to its objectives and targets; however, it did not suggest any relevant measures/indicators. For most indicators collection methods, frequencies and responsible organisations were indicated, however the tasks were not defined. In this regards, the LTP provided more details, e.g., methodologies and risks assessment for performance indicators (B/C). In Blackburn with Darwen, several proposed monitoring tracks were split into direct (related to the LTP2) and indirect (through other Council’s initiatives) monitoring. Within the frames of the first SEA monitoring regime, the LTP performance indicators were suggested to be monitored. The drawback was that hardly any links were drawn between the identified negative effects of the LTP and the LTP indicators. Indirectly, the SA was suggested to be monitored through the Council’s LDF, environmental audits, and socio-economic reports. While this was an original proposal, it did not specify any measures for delivery. The design of monitoring was well-thought with methods, outcomes, risks, and funds for most indicators and targets being specified. Time-schedules were not given, but the interviews revealed that the necessary procedural documents were internally developed and followed (B/B).

In all three LTPs, several SEA follow-up evaluation tracks are distinguishable. In Lancashire, some of them, e.g., performance evaluation, are better elaborated, while others like area-wide evaluation are only mentioned. The data processing, aggregating and evaluation methods are

described for the selected indicators only, leaving the rest to the in-district procedures. Few evaluation timescales and roles are defined. One of the LTP2 strengths, nonetheless, is a review scheme, which secures quarterly and annual reviews of the LTP performance against the targets at several management levels. Most of the SEA follow-up evaluation and interpretation is accomplished in-house, thereby reducing the data/formats compatibility issues (C/C). In Blackpool, data processing and evaluation methods are specified only for few indicators and are tiered to the monitoring data. The weakness is that the SEA follow-up evaluation tasks are not clearly defined and the evaluation mandates are only generally outlined being a subject to the internal procedures (B/C). The Blackpool with Darwen LTP and follow-up identify three evaluation tracks, i.e. impacts evaluation, goals-achievement, and performance evaluation. Data processing and evaluation methods are specified for few indicators only; however, their methods have a clear bearing on monitoring data and methods. Data evaluation and aggregation is supported by the designated software, which also facilitates the identification of areas where the managerial responses are needed (B/B).

Regarding the types of follow-up management, the Lancashire LTP2 and SEA follow-up performance framework refers to Type II. 'direct implementation actions' and Type III. 'activities controlled by a PPP' (Chapter 2). According to the interviews, the operating and higher level LTP management considers the monitoring and evaluation findings for short- and longer-run decisions/actions. The regular reviews may result in explaining the off-track issues and developing corrective actions plans or proposing more difficult targets for the on-track topics. However, management mandates are unclear (C/C). In Blackpool, the key envisioned SEA follow-up and LTP2 performance management activities are the direct LTP implementation actions and other actions controlled by the LTP. The generic system of SEA follow-up decision-making suggests that the Council takes decisions in consultations with the delivery partners. However, management details and procedures are not specified in the LTP/SEA documents, rather they are supposedly developed internally (C/C). The basic SEA follow-up management types in the Blackburn with Darwen LTP refer to Type II. 'direct implementation actions' and Type III. 'activities controlled by a PPP'. These are operated through four layers of the LTP performance management: indicators/targets, individual schemes, and program management, and cost control. The SEA follow-up and LTP performance decision-making scheme are acknowledged by the LTP officers as useful (B/B).

In all three Authorities, the progress of SEA follow-up is communicated as part of the LTP annual progress reports (APRs), which are posted online and submitted to the Government.

Also a website is run that informs the public and the government about the SEA follow-up/LTP progress and news and allows for getting feedback/comments. The public is engaged in the LTP delivery through partnerships and surveys (A/A). Blackpool regularly produces website posts and newsletters that inform and, according to the formal requirement, biennial progress reports that are submitted to the central Government; while specific data are sent to the dedicated departments, e.g., the air quality data are reported to the DEFRA. It is to be noted that the Blackpool LTP communication strategy utilises the informing/engaging tools of the Council's other community strategies (A/A). Blackburn with Darwen also updates the government, stakeholders and the public via APRs, website updates, partnership meetings, forums, articles, etc. Further, forums and scheme-specific phone or e-surveys consultations engage the stakeholders and public in the LTP and SEA follow-up delivery (A/A).

In Lancashire, the integration of SEA follow-up with the LTP drew upon the degree of integrating a) the SEA monitoring indicators into the LTP monitoring framework (this was done with no explanation of decision-making provided) and b) the SEA recommendations, mitigation and enhancement measures into the LTP delivery (this was envisioned, however whether the recommendations are actually followed or not will be clearer with time). On the whole, the SEA follow-up measures/recommendations were planned to be integrated with the LTP performance framework. Nonetheless, the integration seems to be with some omissions as though the SEA recommendations were envisioned to be delivered within the LTP2, it is not transparent how they were fed into the LTP performance management (B/B). The Blackpool LTP's SEA entered the planning process when the Provisional LTP2 was completed, which did not allow for achieving an effective 'concurrent' integration mode (Chapter 2). As a result, the inclusion of the SEA recommendations and measures into the LTP2 is not straightforward. On the one hand, some SEA follow-up indicators are delivered as part of the LTP2. On the other hand, the fate of other proposed indicators is unclear; as is the extent to which the SEA recommendations are being implemented (C/C). The Blackburn with Darwen LTP and SEA follow-up integration was shaped by the integrated in-house SA and LTP process. It resulted in a merge of the SEA follow-up monitoring proposal and the LTP performance, while the SA mitigation/recommendations were incorporated in the LTP in the course of planning. A confusing point is that the SEA follow-up per se has dissolved in the LTP performance regime and become hardly identifiable (B/B).

In all three LTP SEA follow-up, the consistency and links between the LTPs and SEA follow-up targets and standards and those of the lower LTP programs and horizontal, i.e. Districts

and the LCC strategies or within-district strategies in case of unitary boroughs are clear-cut (A/A). In Lancashire, the mitigation and enhancement measures suggested by the SEA are consistent with the targets and directions set out in the higher strategies such as the Regional Economic Strategy, JLSP, and RSS. In Blackpool, there is a general coherence between the SEA follow-up and LTP targets/standards and those of the horizontal, (sub)regional, and national strategies and lower LTP programs. In Blackpool with Darwen, consistency checks are to be undertaken as the LTP and follow-up proceed or other strategies are launched

The Lancashire LTP2 implementers and key partners acknowledge the importance of open cooperation. A rather high level of cooperation is observed among the LTP implementers, various authorities, stakeholders and private sector across the county. This facilitated consensus building with regard to the SEA follow-up methods. A strong leadership by the LCC contributes to a better organised and coordinated work of the 12 Districts and other partners and stakeholders (A/A). LCC also lead cooperation among the neighbouring councils such as Blackpool. In Blackpool, there are strong cooperation forms established within the Blackpool Council and between it and the public and private organisations in support of the LTP and SEA follow-up delivery. Despite this, the consensus-building on the SEA follow-up was weakened by the lack of timely coordination and negotiations (B/B). In Blackburn with Darwen, promoting stakeholder cooperation and wider participation opportunities is one of the LTP principles. There is a high level of inter-departmental cooperation on the LTP delivery issues in the Council. The latter collaborates with the local private and public bodies and with the neighbouring councils and various agencies. Due to a clear coordination role of the Council, the cooperation is well maintained. Consensus-building exercises occurred when the LTP and SEA follow-up methods were designed and are initiated further as needed (A/A).

The adaptability of the LTP and SEA follow-up contains four components. First, the Blackpool LTP and SEA follow-up are informed by the feedback from the LTP schemes as they are implemented. The opportunity to use the information is linked to the revision/review cycle (B/B). In Lancashire, organisational anchoring for SEA follow-up and LTP delivery is quite well maintained. It occurs through the APRs as a formal feedback from the subsequent decision-making to the LTP2 at different levels and often, as an informal feedback within the SEA follow-up activities at operating level (B/B). The adaptability of the Blackburn with Darwen LTP and SEA follow-up in terms of feeding back the information from the subsequent decision-making to the LTP is secured by the annual reports mechanism. The reports are informed by the feedback from and progress of the ongoing actions. The

interviews admit that the full scale feedback is not a routine exercise; rather it should take place during the whole LTP review (B/B).

The second component is adaptive management, which is a usual, yet not well documented practice in the Lancashire LTP. The regular revisions to reveal deviations from the intended actions and deliberate response changes are part of adaptive management routine. The causes of the external factors that influence the non-envisioned LTP and SEA follow-up performance need to be investigated in terms of their controllability by the LTP implementers and the proper measures need to be taken (C/B). In Blackpool, there are provisions for response to emergent and deliberate changes, and routine adaptive management is foreseen and practised. However, in some cases the LTP's claims that it is responsive to changes in "wider policy approaches" are not substantiated by tangible monitoring and evaluation tools (B/C). The Blackburn with Darwen LTP and follow-up to some extent both envision and practise routine adaptive management; but, responding to (external) emergent situations is quite weak (C/C).

Third, in Lancashire, the revisions of SEA follow-up following the changes in the LTP contents rarely occurs in practice due to the limited resources and numerous internal policies in the LCC and Districts. Only minor changes to the monitoring methods and objects are admissible at the operating level (C/C). Based on the annual LTP2 schemes delivery, the Blackpool LTP2 considers a possibility to revise the SEA follow-up indicators as part of the LTP. It also envisages the revisions of the LTP targets and trajectories that could be followed by the necessary changes in follow-up. However, the means to make the mentioned changes are limited by the procedures of annual reviews and are not clearly defined (C/C). The Blackpool with Darwen LTP superficially deals with the changes that can occur to SEA follow-up if the LTP changes; nonetheless, the interviews show that adjustments are possible and the changes in the LTP are thoughtfully considered as they emerge in terms of their implications for follow-up and monitoring (B/B).

Finally, the adaptability of the SEA follow-up and LTP in terms of the ability of the LTP to be revised if SEA follow-up reveals unforeseen impacts is hardly practised in Lancashire. It is restricted by financial and technical problems and long political endorsement processes (C/C). In Blackpool, the revision of the LTP elements in case SEA follow-up reveals unexpected impacts is possible as long as only minor changes with the associated minor budget changes are concerned. Otherwise making a change is technically and politically difficult, as larger changes need to go through a slow political procedure and stakeholder consultation. In either case, no mechanisms other than annual reviews are envisioned to respond to any external or

internal changes (C/C). The same problems are relevant for Blackburn with Darwen. But, according to the interviews if the SEA follow-up findings and especially environmental issues are significant, the LTP actions can be immediately modified. This may or may not involve political decision-making process depending on the scale of the changes needed (B/B).

Overall, the process variables of SEA follow-up in three LTP2s perform well in such areas as screening, communication, and consistency of the SEA follow-up targets with those of other strategies (As or A/As). In LanLTP2, it is also goals setting and cooperation that perform well (A or A/A). In Blackpool, explicitness of goals belongs to the same top performance category (A), while in Blackburn with Darwen it is assurance of stakeholder cooperation (A/A). The areas that perform with some omissions (B or B/B) are scoping, interior integration, and formal feedback from subsequent decision-making in Lancashire; stakeholder cooperation and adaptability to a formal feedback from subsequent decision-making and (non)deliberate adaptive management in Blackpool; and scoping, monitoring, management, evaluation, deliberate adaptive management, responsiveness to a formal feedback and of SEA follow-up or the LTP in case of changes in either, and interior integration (despite SEA follow-up being dissolved in the LTP management framework) in Blackburn with Darwen. In Lancashire, the deliberate and emergent responsiveness of SEA follow-up and the LTP although satisfactorily elaborated is being actively developed in practice, depending on the available resources and two levels of political processes - in the County and Districts Councils (C/B). In Blackpool, monitoring is the only variable that was designed to a larger extent but practically lacked the implementation mechanisms (B/C). In Lancashire, the variables that are both envisioned and implemented satisfactorily are monitoring, evaluation and management, particularly in terms of designing methods and schedules and implementation, and two adaptability elements dealing with revisions of the LTP and SEA follow-up if either of them changes (C/C). In Blackpool, the next variables perform satisfactorily: scoping, evaluation and management especially in terms of designing and delivering SEA follow-up methods and schedules, interior integration and the adaptability of the LTP and SEA follow-up in terms of their revisions as a result of changes in either (Cs or C/Cs). In Blackburn with Darwen, the areas that are envisioned to a lesser extent and perform satisfactorily are goal setting and responsiveness of the LTP and SEA follow-up to (external) emergent changes (C or C/C).

6.1.4 Structural dimension

The review of the nine structural variables is based on the document analysis, interviews and consultations held with the Merseyside transport Partnership, Lancashire LTPs' stakeholders

and representatives of the public/NGOs. The grading for the performance of structural follow-up variables in Merseyside and Lancashire are given in [Table 4-2](#) and [Table 6-7](#) respectively.

6.1.4.1 Merseyside

The SEA/HIA follow-up program and LTP performance management were organised in a way that allowed for an easy identification of the LTPs' and follow-up owners. The LTPs clearly define the status of proponent organisations and the ownership over the follow-up including collective or personal ownership for each performance monitoring indicator (A).

Table 6-6 Performance of the SEA follow-up structural variables in the Merseyside LTP

Structural dimension	Merseyside LTP
Statement of strategy ownership and status of proponents	A
Specified timing and position of SEA follow-up in planning and decision/policy-making cycle/process:	
➤ in relation to SEA and its strategy formulation and delivery processes	A
➤ in the broader context of upper, lower, or horizontal strategies and their EAs	B
Acceptance of roles and responsibilities and accountability in SEA follow-up by relevant stakeholders	B/B
Transparency for SEA follow-up delivery activities	B/B
Commitment (motivation) by responsible stakeholders and acknowledgement of threats for non- implementation of SEA follow-up	B/B
Competence (managerial) and adequate resources for SEA follow-up in PPP/SEA budgets	B/C
Networking for credibility and mutual trust	B/B
Provisions and possibilities for capacity-building (education, training)	F/C

In relation to the LTP2 formulation and delivery, the timing and position of follow-up are clearly defined. SEA/HIA follow-up is done for the existing planning cycle and is revised according to the LTP revision/reporting cycle. It is supposed to be reviewed on a 5-year rolling basis in line with the guidance/regulations (A). The temporal and spatial position of follow-up in reference to the broader context of the related strategies is less clear (B). Vertical tiering of SEA/HIA follow-up actions and objectives with those of upper and lower strategies and policies is evident. Especially strong links are between the follow-up programs of lower strategies of the LTPs, from which the information flows directly to follow-up. However, less clarity exists about the relation between SEA follow-up and the related horizontal strategies despite some good links established during strategies preparation. While the LTP's SEA/HIA is accomplished in the tiered SEA system, it does not refer to SEAs/SAs of higher-order strategies, e.g., to these of the RSS. Correspondingly, no explicit links are identified between the LTP SEA follow-up and the parallel process of SA monitoring of the regional strategies.

Acceptance of roles and responsibilities and accountability in SEA follow-up by relevant stakeholders have been envisioned and perform well (B/B). There is a cooperation-based distribution of general and specific follow-up duties and acceptance of those by the LTP and

follow-up actors. However, the lack of enforcing mechanisms that are essential for keeping track of follow-up and performance monitoring should be noted. Corporate and personal accountability for conducting follow-up and for the LTP consequences is acknowledged.

Consideration is given to maintaining transparent frameworks for the MerseyLTP and SEA/HIA follow-up delivery. They are supported through multi-stakeholder cooperation and partnership forms, public participation in the SEA/HIA follow-up through annual controlled surveys, bespoke consultations, personal or online communication with the public/NGOs, and annual reports. The still low public interest in environmental follow-up weakens the motivation of the implementer to retain its transparency (B/B).

There is a clear commitment to accomplishing SEA/HIA follow-up as part of the LTP performance management. This is underlain by external incentives and internal motivation of the Partners' who understand the threats of non-implementing follow-up schemes (B/B). These aspects contribute to the enhanced accountability and transparency for follow-up.

While according to the documents there are just sufficient skills and competences and resources for carrying out the LTP and SEA/HIA follow-up, in practice budgets are unclear and financial and technical resources are limited. Some districts, especially St. Helens and Wirral arguably consider the lack of technical and financial resources as well as human resources as factors restricting the follow-up implementation. A relationship between the developing economic conditions of Mersey, corresponding political priorities and weakly funded follow-up schemes is stressed (B/C). The Mersey LTP2 SEA/HIA follow-up demonstrates that the continuity of stakeholder involvement is important not only to ensure that the LTP and follow-up are implemented as intended and that adaptive environmental management is in place, but also to provide for the continuity of experience.

The culture of cooperation, partnership and reporting established during the LTP and SEA/HIA-making contributes to maintaining formal networks for the LTP/follow-up implementation. Internal procedures constitute "formal provisions" for exchange of operating follow-up data in the LTPs at the operational levels within and across the districts. Formal networks functioned e.g., between the LTP mid-range officers, member of thematic groups and those of other Mersey Council initiatives. Leadership and coordination of such formal networks was/is assigned to the officers with higher competence. As the implementation proceeds, some formal networks are transformed into informal ones that seek to share the issues and possible solutions of the LTP and follow-up implementation. Thus, to some extent the inter-strategy and inter-organisation links and connections created during SEA are

maintained with no *proforma* if SEA follow-up is carried out. The Merseyside LTPs is an illustrative case of informal networking (B/B).

No training or capacity-building actions are envisioned to facilitate the SEA follow-up implementation as part of the LTP2 (F). However, the interviewees state that in case of necessity, these can be initiated for the relevant LTP/follow-up actions and officers (C). Not much evidence though was available on such cases (F/C)

To sum up, in Mersey transport planning some structural variables of SEA/HIA follow-up perform well or are evident such as the ownership for follow-up and status of the LTP/follow-up implementers and timing and position of follow-up in relation to the LTP/SEA formulation and delivery (A). Minor omissions and less deliberate performance is observable for acceptance of roles and accountability for follow-up, timing and position of follow-up in the broader context of the related strategies and their EAs/follow-up, transparency for follow-up, commitment and consideration of non-compliance with the follow-up actions, and networking (B or B/B). One variable that has been theoretically well considered, but appeared to be problematic in practice is competence and adequate resources for follow-up (B/C). Finally, designing provisions for capacity-building and delivering training for the implementation of the LTP and follow-up are unsatisfactory (D/D).

6.1.4.2 Lancashire County Council, Blackpool and Blackburn with Darwen

Regarding the structural variables, the LCC holds the ownership over the LTP policies, for each of which a manager is assigned with a wide package of tasks. How the ownership for each performance monitoring indicator is distributed among the LCC and its partners is not clear-cut (C, [Table 6-7](#)). Similarly, the overall (corporate) ownership for the Blackpool and Blackburn with Darwen LTPs and their follow-up is clear as well as the statuses of the LTP and SEA follow-up implementers. However, the collective/individual ownership for the performance indicators or separate schemes is not detailed in Blackpool (C). Blackburn with Darwen describes ownership for only some performance indicators, targets, and schemes. Its Council propagates a shared ownership with its partners and strives to build a public ownership for some LTP schemes including follow-up, but no details are provided (C).

Table 6-7 Performance of the SEA follow-up structural variables in the Lancashire LTPs

Structural dimension	LCC LTP	Blackpool LTP	Blackburn with Darwen LTP
Statement of strategy ownership and status of proponents	C	C	C
Specified timing and position of SEA follow-up in planning and decision/policy-making cycle/process	A	A	A
➤ in relation to SEA and its PPP formulation & delivery processes			

Structural dimension	LCC LTP	Blackpool LTP	Blackburn with Darwen LTP
➤ in the broader context of upper, lower, or horizontal strategies and their EAs	B	B	B
Acceptance of roles and responsibilities and accountability in SEA follow-up by relevant stakeholders	C/B	C/B	C/B
Transparency for SEA follow-up delivery activities	B/B	B/B	B/B
Commitment (motivation) by responsible stakeholders and acknowledgement of threats for non-implementing SEA follow-up	B/B	C/C	C/B
Competence (managerial) and adequate resources for SEA follow-up mentioned in PPP/SEA budgets	B/C	C/C	B/B
Networking for credibility and mutual trust	B/B	B/B	B/B
Provisions & possibilities for capacity-building (education, training)	F/E	F/E	F/C

The timing and position of SEA follow-up in relation to the SEA and LTP2 delivery in all three authorities is in compliance with the regulations and guidance and feeds into a 5-year rolling transport planning and delivery cycle (As). Meanwhile, its position in the context of upper, lower and horizontal strategies for all three strategies is less clear. While all three LTP2 SEA follow-up are somewhat considered in the horizontal, neighbouring LTP2s and follow-up schemes, other local lower-level and District initiatives, their linkage to SEA/SA monitoring of regional or Councils' strategies is less explicit (B). Meanwhile, this would be of particular interest, especially in Blackburn with Darwen, where the follow-up proposal was to monitor the SA through the LDFs and other Council's initiatives.

Stemming from the ownership issue, the 12 Lancashire districts accept their roles as the responsible bodies for the relevant LTP programs, whilst the LCC hold the corporate accountability for the whole LTP2. Similarly, the overall responsibility and accountability for the Blackpool and Blackburn with Darwen LTPs rests with a corresponding Unitary Authority. The LTP and SEA follow-up design does not envisage any enforcement mechanisms to allow the management to improve the SEA follow-up delivery (C/Bs).

The transparent LTP and SEA follow-up delivery in LCC is maintained through partnerships, stakeholder cooperation, consultations, forums, regular intra- and inter-District and the LCC meetings, the APRs and openness to the public comments. The acceptance of roles and transparency in the SEA follow-up and LTP reflect the commitment of the LCC and its partners to protect the environment and implement SEA follow-up as part of the LTP. This is largely driven by different external incentives, such as awards and corporate public reputation (B/B). The acceptance of responsibilities positively contributes to creating transparency for the Blackpool LTP's SEA follow-up activities. A significant input comes from the vast community consultations and participation during the LTP and SEA preparation, which formed the basis for the transparent follow-up/LTP delivery. Additionally, such measures as

partnerships, forums, newsletters, leaflets or reviews are proposed to widen and increase the stakeholder involvement and thereby buttress the existing transparency means (B/B). In Blackburn with Darwen, the processes *within* the Council determine what issues, when, to what extent and in what kind of form need to be unveiled to the public. Despite these internal processes that might hinder transparency of some SEA follow-up and LTP delivery aspects, annual/biennial reports, scheme-specific consultations, articles, scheme- or interest-related forums, website updates, newsletters, regular meetings of partnerships significantly contribute to the transparent and legitimate LTP and SEA follow-up (B/B).

In Lancashire, the existence of internal personal commitment is stated in the documents and by the interviewees, and some implications of non-implementing SEA follow-up within the LTP are acknowledged and managed through the LTP2 risk appraisal and management scheme (B/B). In Blackpool, in contrast to the accountability aspects, corporate commitment, although implied, is not clearly expressed; nor is the personal commitment and motivation. The consequences of non-delivering follow-up are hardly envisioned or carefully acknowledged (C/C). Whilst the commitment to follow-up is not articulated, Blackburn with Darwen Council and its officers quite clearly express their commitment to monitor the LTP and SEA follow-up performance. This is underpinned by financial incentives and ethical motivation. The way how this variable was addressed is weakened by the fact that the potential threats of non-implementing follow-up are not properly documented. Despite this, they are acknowledged and understood by the responsible stakeholders (C/B).

Regarding the managerial and material resources for SEA follow-up, all three Councils envision financial and human resources for monitoring and follow-up. However, they are limited. According to the interviews, the LCC and 12 District possess hardly sufficient finance, just sufficient competence and technical-managerial capacities to deliver the SEA follow-up for the LTP (B/C). Blackpool points to the limited technical capacities and stresses the benefits of the continuity of staff and its high managerial competence. In the absence of clearly expressed commitments, the lack of attention in the SEA and LTP to the implications of non-compliance with the SEA follow-up measures or indicators is a weak point (C/C). In case of Blackburn with Darwen, adequate operating, professional and managerial competence is in place and funding for monitoring and follow-up is defined in the LTP's investment program. In some cases, monitoring funding for the LTP is matched to that of other initiatives that helps the Council to make the best use of the available resources (B/B).

Networking is considered to be a vital element for raising the managerial competence and effectiveness of the Lancashire LTP and SEA follow-up. There are formal networking at the operating and middle- to top management levels in the form of partnerships, forums, thematic groups and sub-groups of the LTP implementers, consultation groups, review boards, etc. Short-term informal networks are formed to deal with the 'pre-alarm' situations, which positively influences SEA follow-up and LTP delivery. Networks do indirectly contribute to the enhanced credibility of the LTP, SEA follow-up, and the LCC with its Partners (B/B). In Blackpool, the stakeholders to the SEA follow-up and LTP are members of multiple formal networks. They involved the representatives of the public and private sectors and draw on the shared interests and theme- or competence-wise motivation. This benefits the LTP and SEA follow-up delivery in terms of the enhanced mutual support among the stakeholders and credibility of the LTP as such (B/B). In Blackburn with Darwen, formal networks are plentiful as they draws upon the SA-born platforms created within and beyond the Council during the LTP-making. Here, the interesting phenomena are "semi-formal" networks (see [Appendix I](#)). Meanwhile, informal networks are quite rare. Multiple networks support learning, cooperation and mutual trust and contribute to the transparency of the LTP/SEA follow-up (B/B).

Given the limited finances and just sufficient human and technical resources, no training possibilities for the SEA follow-up and LTP implementers and operators are envisioned in all three LTPs, and no possibilities for institutional brokering are explicitly explored (Fs). This limits learning of the SEA follow-up stakeholders, whilst opening the possibilities for external support and institutional brokering. This also implies that the existing capacities are deemed to be sufficient, which is not the case in reality, at least for LCC and Blackpool (Es). The Blackburn with Darwen Council has demonstrated sufficient capacities for conducting SA in-house and is determined to deliver SEA follow-up within the LTP by its own forces and thus, considered capacity-building, other than that involving internal learning through networking, redundant. However, according to the interviews, this does not exclude the possibility for institutional brokering and the officers are sent to training whenever needed; yet not many details are available from the LTP and its implementers in this respect (F/C).

To summarise, the well performing structural SEA follow-up variable in the LCC, Blackpool and Blackburn with Darwen LTP2s is 'clear timing and position of SEA follow-up in relation to the LTP delivery' (As). Less well elaborated design features such aspects as SEA follow-up position in the context of other strategies (Bs), transparency for follow-up, formal networking (B/B), commitment of the LTP implementers in Lancashire (B/B) and adequate competence

in Blackburn with Darwen (B/B). For all three cases, while accountability and role acceptance are envisioned to a less extent, they are implemented to a larger extent (C/B). In contrast, competence and resources in Lancashire are envisioned in more detail, but in practice, they are just satisfactory (B/C). In Blackpool, commitment, competence, and resources for follow-up are just satisfactory (C/C). Finally, ownership and status of the follow-up implementers for all three LTPs are ambiguously articulated (Cs), and capacity-building provisions are nearly absent (F/Es; F/C for Blackburn with Darwen).

6.2 Analysis of cases in Canada

This section consecutively analyses two case studies in Canada, namely SEA follow-up to the Pasquia-Porcupine Forest Management Plan (PP FMP), Saskatchewan¹¹⁴ and Core Area Sector Plan (CASP) in the National Capital Area of Canada. It first presents the backgrounds to the cases and then scrutinises them as per the SEA follow-up framework dimensions and variables. The contexts of the PP FMP and CASP are rather different due to the distinctions between the federal and provincial strategic EA provisions and practice (see Noble 2004b). Therefore, in contrast to the UK cases, the contexts are analysed separately. Each sub-section with the dimensions contains a table with grades assigned to the SEA follow-up variables.

6.2.1 Background to Case Study 5: Pasquia-Porcupine Forest Management Plan, Saskatchewan

The province of Saskatchewan is located in the southern part of Canada ([Figure 6:3](#)). Forested land accounts for about 30 million hectares, which is 46% of the total area of the province (see Archibold 2007). Its most economically significant, non-agricultural renewable resource is timber (see Reed & Mills 2007). The PP Forest Management (FM) Area is located in the Boreal Plain Eco-zone of eastern Saskatchewan along the Saskatchewan-Manitoba provincial border and surrounds the Hudson Bay and Cumberland House communities. It lies within the boundaries of the PP Integrated Forest Land Use Plan (IFLUP)¹¹⁵ prepared by Saskatchewan Environment and Resource Management (SERM; presently, Saskatchewan Environment

¹¹⁴ This case served as the basis for the article: Gachechiladze, M., Noble, B., & Bitter, B. 2009. Following-up in strategic environmental assessment: a case study of 20-year forest management planning in Saskatchewan, Canada. *Impact Assessment & Project Appraisal*, 27 (1):45-56. Parts of this article may coincide with the analysis in this Chapter and [Appendix I](#), as they reproduce the original single-authored version of the analysis.

¹¹⁵ The IFLUP aimed to “manage the use of the land and the renewable and non-renewable resources on an integrated and environmentally sound basis to ensure ecological, economic, social and cultural benefits for present and future generations” (SERM 1998b,5).

(SE)) in collaboration with land users in 1998. The FMP's area is approximately two million hectares, about half of which was suitable for commercial timber production (SMLP 1997c).

In 1997, MacMillan Bloedel Limited, one of Canada's largest forestry industries, and a subsidiary of the Saskatchewan Crown Investments Corporation formed a partnership called "Saskfor MacMillan Limited Partnership" (SMLP) to apply for a Forest Management Agreement (FMA)¹¹⁶ in the Pasquia-Porcupine Forests. To enter into the FMA with the Saskatchewan Government the SMLP prepared a 20-year FMP and an EA in an integrated manner and submitted these for the Government's and public review¹¹⁷ (SMLP 1998). Upon

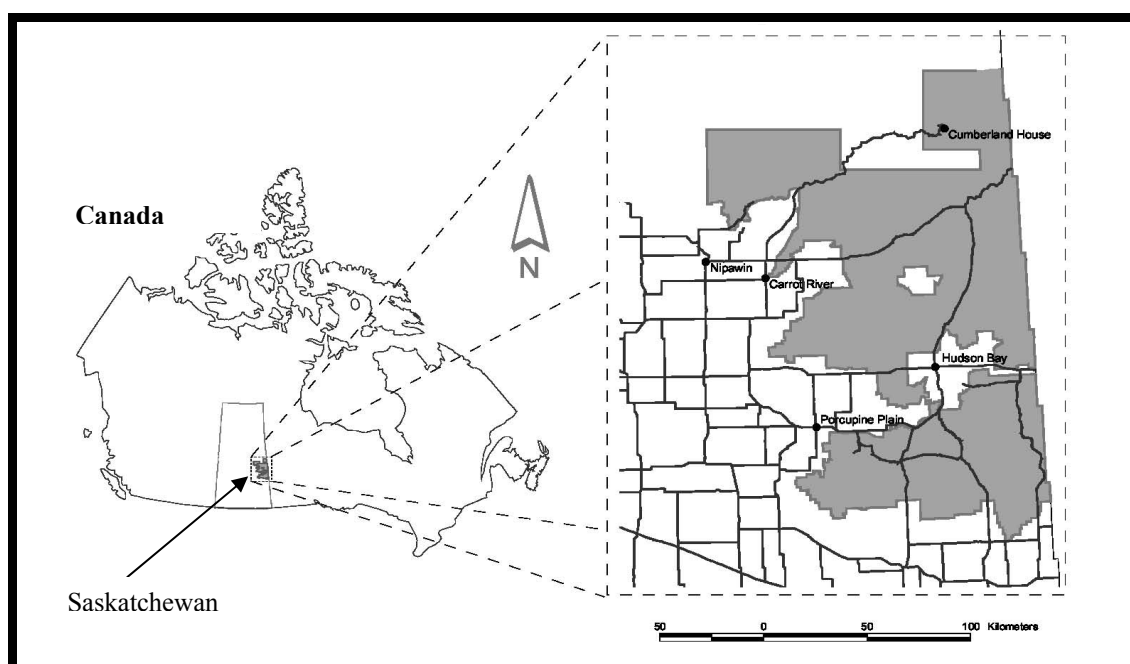


Figure 6:3 Pasquia-Porcupine Forest Management Area in Saskatchewan, Canada

Source: (Gachechiladze *et al.* 2009)

the endorsement of both documents in 1999, the FMA was signed. Later that year MacMillan Bloedel Ltd. bought out the Saskatchewan government's share in SMLP and within a month Weyerhaeuser Saskatchewan Ltd.¹¹⁸, a daughter company to one of the world's largest timber producers-Weyerhaeuser, bought out the Partnership and took over the responsibility for implementing the PP FMP (see Gachechiladze *et al.* 2009; Weyerhaeuser 2009a).

The 20-year Pasquia-Porcupine FMP is the fifth SEA follow-up case study of this Dissertation (Table 6-8).

¹¹⁶ FMAs are formal agreements between the Minister administering the FRMA and a harvesting company regarding licensing, permitting, harvesting, and responsibilities for forest management and regeneration

¹¹⁷ Pursuant to the Saskatchewan EA Act, Clause 9.1 and the Forest Resources Management Act (Sec. 100-107).

¹¹⁸ Hereinafter: Weyerhaeuser, the Company or the proponent (the implementer).

Table 6-8 Pasquia-Porcupine Forest Strategies

Strategy	Years	Assessment
Pasquia-Porcupine IFLUP	1998- (rolling)	(EA elements; recommendations for EA of the PP FMP)
Pasquia-Porcupine FMP	1999 - 2019	EA (EA)
Amendment to PP FMP	2005	Change to EA (2005)

NB: the key examination focus is marked in grey.

The FMP was supposed to be renewed in 2009; however due to the global economic downturn and the associated problems in Saskatchewan forestry, the Ministry of Environment granted Weyerhaeuser a one-year extension (see Weyerhaeuser 2008; Weyerhaeuser 2009b)¹¹⁹. During the FMP's implementation, the changes to the plan required that the FMP and its EA were amended (see Golder'Associates 2005; Weyerhaeuser 2005).

6.2.2 Context dimension of SEA follow-up in Saskatchewan

This section reviews 10 variables of the SEA follow-up context dimension of the PP FMP in Saskatchewan drawing on the interviews, document analysis and personal correspondence with the case study actors. The grades assigned to the context SEA follow-up characteristics are given in Table 6-9 (for the explanation of grading see Chapter 3, Table 3-8).

Table 6-9 Performance of the SEA follow-up context variables for the PP FMP

Context dimension	Pasquia-Porcupine FMP
Existing planning and policy-making practice and the SEA system incl.:	
➤ Planning type and policy framework for SEA/follow-up	B
➤ Political commitment to SEA/ follow-up and influence	B
➤ Socio-economic preconditions for SEA/follow-up	B
Formal provisions for SEA and follow-up incl.:	
➤ Legislation and regulations	B
➤ Manuals, guidelines and guidance for SEA/SA/SIA	C
➤ Enforcement and compliance mechanisms	C
➤ Formal distribution of responsibilities	A
Formal compliance with sustainability principles	A
Possibility to incorporate the SEA follow-up results in revised/updated/new strategies/cycles incl. provisions for adaptive planning & SEA follow-up system	A
Integration of SEA follow-up with existing monitoring systems	B

Saskatchewan has a clear hierarchy of forest planning system from provincial Forest Accords, IFLUPs, FMPs to local operating plans. There is a limited policy and formal framework for strategic EAs and follow-up. Nonetheless, they have been practised in forestry since 1996 being guided by sectoral guidance and project specific EA guidelines (B). Their development has been streamlined by a fairly strong political commitment to sustainability and SEA,

¹¹⁹ Fieldwork for this case was accomplished in December 2007, when the PP FMP review and renewal activities were just commencing. Thus, the Dissertation's insights are restricted to 2007. However, it considers the recent changes in the FMP and its context whenever possible.

reinforced in the 1990s by legal and guidance documents. According to them Saskatchewan is committed to EA for FMPs and to an integrated approach to FM and planning (B).

Industrial proponents need to secure funding for preparing/conducting SEA, follow-up and FMPs and to carefully consider various economic circumstances, social values, and cultural and heritage concerns of Aboriginal and non-Aboriginal communities, which often appears to be a problem that may hinder the EA/follow-up process (B).

The PP FMP represents what might be considered an example of ‘informal’ SEA follow-up in that there does not exist a formal SEA system in Saskatchewan. In the absence of a legislated SEA framework, both SEA and the practice of SEA follow-up are ongoing for 20-year FMP under the EA and forestry legislation, permitting, and binding Ministerial conditions (i.e. the binding case-specific approval conditions under the EA Act and the FRMA and “Reasons for Decision”) that require monitoring and reporting of EAs and FMPs implementation (B).

Guidance for SEA and follow-up for FMPs in Saskatchewan is limited. SE provides consultations and assistance throughout the EA process and issues case-specific guidelines. The proponent also refers to the relevant assessment, monitoring, evaluation, etc. advice from the CSA’s Guidance on Sustainable FM and other theme/sector-specific guidelines (C).

SE strives to enforce the SEA and follow-up requirements through the EA Act, the FRMA and terms and conditions for approvals. However, it is not strong relative to monitoring and follow-up elements due to the insufficient legal provisions for these EA components. EA follow-up and monitoring are not easily enforceable for FMPs (C).

The legal and guiding EA- and FMP-making frameworks spell out the basic responsibilities and roles of the key actors in the EA and FMP process. Follow-up obligations of the parties are stipulated by the FMAs between the proponents and the provincial Government (A).

EA follow-up in FM planning and delivery can rely on a rather solid sustainability-led policy and legal framework. The PP FMP and its EA comply with the principles, goals and targets/indicator of the Sustainable FM concept of the province (A). This planning and policy framework recognises the need for adaptive forest planning systems that would provide for incorporating the results of SEA follow-up as part of FMP monitoring and management programs into future strategies. FMPs-specific formal and guiding documents detail the feedback conditions, thereby reinforcing and supplementing otherwise weak basic legislation (A). They theoretically favour the exterior integration of the FMPs’ monitoring frameworks

with those existing in the province. In practice, problems with data format compatibility do not allow SEA follow-up to fully merge with the existing monitoring systems (B).

To summarise, the formal distribution of roles in FMPs and SEA follow-up, their compliance to sustainability principles of policy/legal frameworks and adaptiveness of FM and planning system in terms of incorporating the results of SEA follow-up in future planning are the strong facets of SEA follow-up in Saskatchewan FMPs (A). Less well performing areas are scarce legal provisions for SEA and follow-up; only forest sector-specific policy framework and political commitment to sustainability, SEA/follow-up; insufficient integration of SEA follow-up with existing monitoring systems and partly favourable socio-economic condition for SEA and follow-up (B). While guiding provisions are reinforced by FMP-specific formal, binding provisions, they are the weak aspects of follow-up in Saskatchewan forestry (C).

6.2.3 Process dimension

14 SEA follow-up process variables are analysed based on the documents, correspondence, interviews, and consultations held in Saskatoon, Regina, and Prince Albert. The variables are graded in terms of the extent to which they have been envisioned and implemented (Table 6-10; for the explanation of grades and decision-making guidelines see Chapter 3).

Table 6-10 Performance of the SEA follow-up process variables in the PP FMP

Process dimension	Pasquia-Porcupine FMP
Statement of SEA follow-up rationales and goals for different planning tiers and decision-makers	A
Screening at the earliest stages of SEA and strategy development	B
Scoping at the earliest stages of SEA and strategy development	A
Formulation and implementation of SEA follow-up steps: types, design, methods, coherence and roles:	C/B
➤ Monitoring	
➤ Evaluation	C/B
➤ Management	B/B
➤ Communication	A/A
Integration of SEA follow-up with the strategy implementation	A/A
Consistency of SEA follow-up targets and standards with those of upper, low, or horizontal strategies (Explicitness of tiers)	B/B
Assurance of open stakeholder cooperation and coordination incl. consensus-building on SEA follow-up method/process	B/B
Adaptability of a PPP and SEA follow-up to ensure:	
➤ feedback from subsequent decision-making to the initial PPP within SEA follow-up (organisational anchoring).	B/B
➤ provisions for response measures to (non)deliberate situations/external changes	C/C
➤ revision of SEA follow-up if the contents of a PPP changes	B/C
➤ revision of a PPP if SEA follow-up reveals unexpected impacts	B/B

The SEA follow-up rationales/goals are rather clear and formed in both top-down and bottom-up ways. They are embraced by the FMP's monitoring and research program and linked to sustainability principles (A). Formal screening for SEA follow-up was done early in the FMP and EA preparation. The FMA, approvals under the EA Act, the FRMA and the Project Specific Guidelines formally required preparing at least some SEA follow-up regardless the absence of the specific requirements in the EA Act (B). Scoping for follow-up occurred early as part of the integrated EA and FMP development. General follow-up boundaries and objectives were formally delineated in two sets of approval conditions, the FMA and Project Specific Guidelines and detailed later in the planning process (A).

Several SEA follow-up monitoring and evaluation types are identified as part of the FMP monitoring schemes. Regarding monitoring, these are monitoring of 'actual implementation activities', 'actual impacts of a strategy' and 'progress towards strategic goals' (Chapter 2); as to evaluation, these are impacts evaluation, goals-achievement, and performance evaluation. Monitoring and evaluation methods and schedules for SEA follow-up are mostly unspecified in the FMP. Operating plans tend to selectively describe them. Data are collected internally and/or externally according to the internal monitoring protocols and guidelines. The analysis often requires specific knowledge and technologies and thus is often done externally. People responsible for data collection are typically responsible for data review, interpretation and reporting (C/B). Then, several SEA follow-up management types are identified. Whereas the roles of actors are not clearly documented in the FMP performance management, its reliance on monitoring and evaluation findings is stressed as a prerequisite for meaningful, timely and cost-efficient management actions (B/B).

The SEA follow-up and FMP monitoring, evaluation and management results are reported to SE, the FMA Committee and the public. Reporting and public involvement methods are well elaborated and applied through two FMP strategies aiming at involving the public in development, implementation and post-implementation review of operating plans (A/A).

The SEA recommendations and mitigation were incorporated in the FMP during the planning process and correspondingly SEA follow-up activities became an intrinsic part of the FMP performance and compliance management (A/A).

To avoid technical and legal problems, the FMP and SEA follow-up targets and standards were designed and are implemented in consistency with those of the related upper and lower strategies and are sensitive to changes in standards and targets of governmental policies. Weaker consistency is with horizontal strategies (B/B).

The integration of SEA follow-up in the FMP delivery was supported by consensus-building dialogue and cooperation between the Company, SE, the public/FMAC, and private sector. Stakeholder collaboration for follow-up effectively builds on the cooperation platform set out during the FMP/EIA preparation; however, Aboriginal involvement remains difficult (B/B).

The adaptability of the FMP and SEA follow-up in terms of feedforward and feedback loops is secured by annual reports and operating plans. Information from subsequent decision-making is considered in future planning and management at the strategic and operating levels and is reinforced by a clear organisational anchoring (B/B).

The mechanisms used in the FMP and its SEA follow-up for coping with minor or routine changes are a repercussion of several decades of adaptive management practice. However, this incremental adaptive management proved to be inefficient to timely react to emergent, external factors that heavily influenced both the private and public environments of the FMP affecting the political and socio-economic climate of the Company and stakeholders (C/C).

Revisions and mutual responsiveness of SEA follow-up and FMP in case the content of either of them changes are required under the approval conditions. Despite this, preparing full-scale EAs to address changes in the FMP is tended to be avoided by the industry due to financial concerns, but could be enforced by the public and government (B/C). Minor modifications of the FMP actions if follow-up or scientific studies reveal negative effects of the FMP on the environment are part of operating routine (B/B); so are minor changes to SEA follow-up in response to changes in the FMP. Revisions to the FMP or SEA follow-up may be impeded by unclear cause-effect relationship, limited resources, or long political/consultation processes.

On the whole, the process SEA follow-up variables in the FMP perform well with regard to the explicitness of follow-up rationales/goals, scoping, communication, and follow-up integration with the FMP performance management (A or A/A). Some implementation and design issues characterise such areas as screening, cooperation, follow-up management, adaptability of the FMP and follow-up in terms of feedback loops, revisions of the FMP in the light of SEA follow-up findings, and consistency of SEA follow-up targets/standards with those of other strategies and policies (B or B/B). The responsiveness of follow-up to changes in the FMP was envisioned, but additional enforcement tools proved to be needed in practice (B/C). While the design of SEA follow-up monitoring and evaluation was not properly documented, practically they performed only with minor drawbacks (C/B). The adaptability of the FMP/SEA follow-up to external, emergent changes is satisfactory (C/C).

6.2.4 Structural dimension

The review of nine variables of this dimension is based on the documents, interviews, and consultations with the key FMP and follow-up actors in Saskatoon, Prince Albert, and Regina.

Table 6-11 Performance of the SEA follow-up structural variables in the PP FMP

Structural dimension	Pasquia-Porcupine FMP
Statement of strategy ownership and status of proponents	A
Specified timing and position of SEA follow-up in planning & decision/policy-making cycle/process:	A
➤ in relation to SEA and its strategy formulation and delivery processes	
➤ in the broader context of upper, lower, or horizontal strategies & their EAs	C
Acceptance of roles and responsibilities and accountability in SEA follow-up by relevant stakeholders	B/B
Transparency for SEA follow-up delivery activities	B/B
Commitment (motivation) by responsible stakeholders and acknowledgement of threats for non- implementation of SEA follow-up	B/B
Competence (managerial) and adequate resources for SEA follow-up mentioned in PPP/SEA budgets	C/C
Networking for credibility and mutual trust	B/B
Provisions and possibilities for capacity-building (education, training)	C/C

Despite a twice changed ownership of the FMP, the ownership over the FMP and follow-up and status of their implementers are clear. In particular, the Company holds the principal ownership over the strategy and shares it with regards to some indicators/action with the government, contractors and the public (Table 6-11).

The PP FMP was a new planning cycle integrated with a single-time SEA; its SEA follow-up is clearly positioned in time relative to the FMP's delivery and formulation (A/A). SEA follow-up cannot be linked to EAs of higher strategies as there is no tiered EA system. In the broader context of lower and horizontal strategies and their SEA/SAs, the position of the SEA follow-up as part of the FMP suffers from some weaknesses. While the SEA is clearly tiered downwards to operating plans and more specific site prescriptions/pre-harvest assessments and upwards to higher strategies, e.g., the provincial Sustainable FMP and the PP IFLUP, it is linked neither to the horizontal FMPs, nor to their EAs. Links of the FMP SEA follow-up to the ongoing monitoring programs of the higher-order strategies are not fully clear (C/C).

Whereas follow-up roles are not detailed in the FMP, they are internally, procedurally divided between the FMP implementers and partners based on the established cooperation patterns and provincial (public) and industrial values and goals. Corporate and personal accountability for follow-up actions and FMP performance is recognised and follow-up duties are accepted by the proponent. The enforcing role of SE contributes to an increased accountability (B/B).

Acceptance of roles and corporate/personal accountability of the FMP implementers strengthen the transparency of follow-up programs, which are approached and implemented from different angles: technical solutions (standards, protocols), expert judgments (audits and public reports), and participatory processes (reviews, meetings). However, some minor problems are acknowledged regarding the quality assurance of all these methods (B/B).

The FMP and follow-up implementers express a clear commitment to deliver SEA follow-up as part of the FMP. Their commitment is underpinned by the legal terms of the FMA that determines penalties, cancellation, and detention policies for the SEA follow-up and FMP performance management. While the potential threats of non-compliance are improperly documented, the responsible stakeholders recognise financial loss, environmental damage, loss of EMS/ISO certification(s), and poor corporate image as non-compliance costs (B/B)¹²⁰.

In line with the strategic industrial planning of the FMP implementer, the feasibility of SEA follow-up was addressed early in the integrated FM planning process as well as the building of sufficient competence for its delivery. Nonetheless, the budgets for follow-up were not properly specified in the FMP or annual reports/operating plans. The implementers consider financial and technical resources for follow-up to be limited (C/C).

The PP FMP's SEA follow-up networks are maintained through formal interactive processes e.g., forums, seminars, workshops involving multiple actors. They build on the cooperation networks established for/during the FMP and EA development. Informal networks are identifiable within the Company and between the Company, SE branches and the public. The contribution of formal and informal networking to raising trust in and credibility of the FMP and its proponent is marginal and depends on external factors (B/B).

The FMP and follow-up contain a number of educational actions aimed at individual and collective capacity-building of all stakeholders *during* the FMP and follow-up delivery. However, they do not detail training opportunities for the proponent and other stakeholders *for* implementing the FMP and follow-up. Insofar as monitoring programs contain many science elements, institutional brokering and involvement of consultants is practised (C/C).

¹²⁰ The discussion of non-implementation stresses a distinction in terms of “power function” between industry-led SEA follow-up and authorities-led SEA follow-up. Authorities-controlled SEA follow-up suggests that an authority has a power to stop/terminate the proponents’ activities. Meanwhile, it might abstain from applying the same sanctions as a self-regulation measure in the absence of other control mechanisms, e.g., by higher-order administration. This element of power brings SEA follow-up for industrial programs closer to EIA follow-up.

To summarise, the best performing structural SEA follow-up variables in the FMP are a clear ownership over the FMP/follow-up actions and a clear timing of SEA follow-up relative to the FMP (A). Minor problems are encountered with the acceptance of roles for follow-up and corporate/personal accountability; transparency for SEA follow-up delivery; commitment to follow-up; and networking (B/B). The variables that perform satisfactorily/are evident to a less extent are the position of SEA follow-up in the broader context of the related strategies, weak linkages with other FMPs and their SEA follow-up, unclear follow-up budgets and limited resources, and limited provisions for capacity-building for follow-up (C or C/C).

6.2.5 Background to Case study 6: the Core Area Sector Plan, Canada

The National Capital Commission (NCC) is a Crown Corporation established in 1959 by the Parliament of Canada to act as the Federal Government Planner in the National Capital Region (NCR). Its mandate is defined by the National Capital Act (1958, last amended in 1988) and includes preparing plans for and assisting in the development, conservation and improvement of the NCR, coordinating the policies and programs of the Federal Government in the NCR, approving the design of buildings and land use on the NCR (e.g., NCC 2005c).

The NCR is formed by the cities of Ottawa and Gatineau situated in the provinces of Ontario and Quebec respectively. It forms the fourth largest metropolitan area in Canada with a population of more than one million people (Figure 6:4) (NCC 2005a). Its central part, known as the Capital Core Area, is the administrative heart of Canada and hosts the majority of federal and provincial offices (Figure 6:4) (see NCC 1999c). The Core Area encompasses the downtown portions of Ottawa and Gatineau and extends over ten square kilometres on both sides of the Ottawa River, which serves as a boundary between two provinces (NCC 2005a). The NCC's planning mandate extends across the boundaries focusing on the Federal lands.

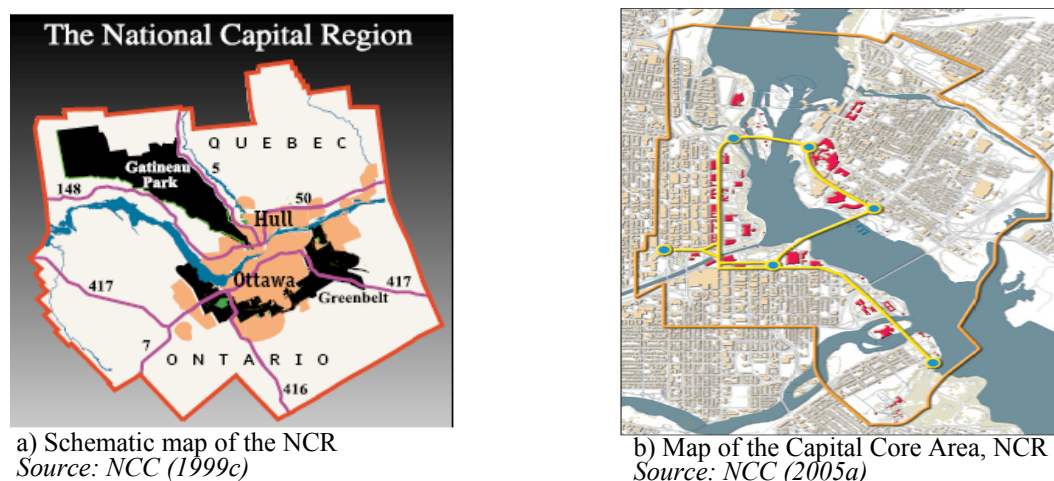


Figure 6:4 Maps of the National Capital Region and Capital Core Area

The NCC has developed a number of plans for the NCR at various temporal and spatial scales. The lead policy document for the Core Area is the Core Area Sector Plan (CASP) prepared in 2005. It aims to guide developments, programming, preservation, environmental integrity, transportation, animation and architectural and design quality on the Core Area's Federal lands over the next 20 years (NCC 2005b). It is the final phase of a 3-stage planning process coming after the Vision for the Core Area of Canada's Capital Region (1998) and the Concept of Canada's Capital Core Area (2000) (see NCC 2005a; NCC 2005d). During the planning process, the CASP underwent an SEA according to the NCC's internal EA policies.

6.2.6 Context dimension of SEA follow-up in the Capital Area

10 variables of the SEA follow-up context for the Canada's CASP are analysed based on the interviews, document analysis and personal correspondence with the case study actors.

Table 6-12 Performance/existence of the SEA follow-up context variables for the CASP

Context variables	Core Area Sector Plan
Existing planning and policy-making practice and the SEA system incl.:	
➤ Planning type and policy framework for SEA/follow-up	A
➤ Political commitment to SEA/follow-up and influence	B
➤ Socio-economic preconditions for SEA/follow-up	B
Formal provisions for SEA and follow-up incl.:	
➤ Legislation and regulations	D
➤ Manuals, guidelines and guidance for SEA/SA/SIA	C
➤ Enforcement and compliance mechanisms	C
➤ Formal distribution of responsibilities	A
Formal compliance with sustainability principles	A
Possibility to incorporate the SEA follow-up results in revised/updated/new strategies/planning cycles incl. provisions for adaptive planning & SEA follow-up system	B
Integration of SEA follow-up with existing monitoring systems	D

The NCC has a clear hierarchy of land use planning, i.e., policy plans, master plans, sector plans and area plans, which systematically undergo SEAs according to the NCC's internal environmental management and EA policies. The NCC has been traditionally incorporating SEA into the PPP-making as per its internal EA Policy (1995), which commits the NCC to assess all activities/decisions in the spirit of the Canadian EA Act, the SEA Cabinet Directive and provincial SEA policy frameworks. The development of follow-up programs is part of this commitment, which creates favourable conditions for follow-up practice (A, Table 6-12).

While political commitment to sustainability and EA is evident and to some extent influential on SEAs of various agencies, it has not extended to establish any legal requirements for SEA and follow-up at the federal level. As a Crown Corporation, the NCC nonetheless undertakes SEAs for all its initiatives, including those that are beyond the legislation and guidance. Thus,

a favourable yet passive political commitment is strengthened by the corporation-wide commitment of the NCC, which is evident/existent to a large extent (B).

Socio-economic preconditions for SEA/follow-up are explicitly supported by the regional priorities to sustainably develop and promote the NCR including conducting SEAs and follow-up. Furthermore, public interest in the environmental issues and SEA/EIA contributes to creating favourable socio-economic processes for the application of SEA and follow-up. However, the overall economic resources remain limited (B).

In the absence of legal requirements for strategic EA and follow-up, the NCC uses on the provisions of the Canadian EA Act and the Ontario EA act. The former requires follow-up programs for projects and the latter requires mitigation measures for PPPs and follow-up measures as per approval conditions. Thus, only some elements of this variable exist (D).

A quite extensive body of manuals and guidelines for strategic EA - i.e. a federal guidance for SEA and the NCC's own EA guidance and manual- contains very limited follow-up provisions. Despite some support that the Canadian Environmental Assessment Agency (CEAA) provides to various agencies to guide their SEA practices, this variable is still rather weak/existent to a lesser extent (C). Respectively, enforcement and compliance mechanisms for SEA and follow-up are also quite weak due to the lack of the legal requirements (C). In fact, federal agencies/crown corporations implement and enforce SEA/follow-up themselves.

The above NCC's role is one of the key roles that are formally defined for the stakeholders in SEA/follow-up. The formal distribution of responsibilities is further spelled out in the Cabinet Directive and the CEAA Guidelines. The NCC policies provide for more detailed, yet generic, inter-organisational distribution of planning and SEA-related responsibilities (A).

The interviewees and documents testify that the value and importance of sustainability principles guide the CASP's monitoring and management schemes (A). The NCC's long tradition of SEA practice in the spirit of the SEA Cabinet Directive reflects its commitment to sustainability. The conduit of SEA and follow-up as part of the planning and implementation processes of the NCC closely follows federal and internal sustainability policies, as well as formal provisions for sustainable development and international best practices.

Whereas the principles of adaptive planning and management are not explicitly referred to in the NCC documents, its planning practice considers the dynamics of socio-economic and natural environments through review and amendment mechanisms. This helps accommodate the results of SEA follow-up given that it is incorporated into the initiatives' monitoring and

performance management schemes. Therefore, a possibility to incorporate the SEA follow-up results in revised/updated/new strategies/planning cycles exists to a larger degree (B).

Finally, some interviewees suggest that the CASP implementation can utilise the existing monitoring processes at the NCC or other agencies. Yet, nearly no exterior integration of SEA follow-up as part of the CASP monitoring and evaluation framework is observed (D).

To sum up, the least developed context SEA follow-up variables are legal provisions for SEA and follow-up and integration of SEA follow-up with existing monitoring systems (D). The satisfactorily performing areas include limited manuals/guidance for SEA and follow-up and weak enforcement and compliance mechanisms (C). The only to-a-larger-extent evident area is the openness of planning system to SEA follow-up results (B). Finally, the fully evident /well-performing areas are formal distribution of roles in SEA and follow-up process and formal compliance of the NCC's and CASP/SEA follow-up with sustainability principles (A).

6.2.7 Process dimension

14 process variables of SEA follow-up are analysed based on the documents, interviews, correspondence and consultations held at the NCC, EA consultancy, and CEAA in Ottawa. The performance of all variables, apart from the first three ones, is examined and graded in terms of both the extent to which they have been envisioned and implemented (Table 6-13) (for grades and decision-making guidelines see Chapter 3).

Table 6-13 Performance of the SEA follow-up process variables in the CASP

Process dimension	Core Area Sector Plan
Statement of SEA follow-up rationales & goals for different planning tiers & decision-makers	C
Screening at the earliest stages of SEA and strategy development	B
Scoping at the earliest stages of SEA and strategy development	B
Formulation and implementation of SEA follow-up steps: types, design, methods, coherence and roles:	D/C
➤ Monitoring	D/C
➤ Evaluation	D/C
➤ Management	D/C
➤ Communication/reporting	C/B
Integration of SEA follow-up with the strategy implementation	B/B
Consistency of SEA follow-up targets and standards with those of upper, low, or horizontal strategies (explicitness of tiers)	B/B
Assurance of open stakeholder cooperation and coordination incl. consensus-building on SEA follow-up method/process	B/B
Adaptability of a PPP and SEA follow-up to ensure:	
➤ feedback from subsequent decision-making to the initial PPP within SEA follow-up (organisational anchoring).	B/B
➤ provisions for response measures to (non)deliberate situations/external changes	B/B
➤ revision of SEA follow-up if the contents of a PPP changes	C/C
➤ revision of a PPP if SEA follow-up reveals unexpected impacts	C/C

The need for SEA follow-up was addressed quite early in the concurrent SEA and CASP development process (B). In the absence of legal requirements, the decision to prepare SEA follow-up was guided by the ‘soft’ regulations in the NCC’s EA policies, planning principles, and directions of higher strategies, e.g., the Plan for Canada’s Capital. However, SEA follow-up rationales/goals were not fully explicit for different planning tiers and decision-makers. Rather they were specified in relation to the major implementer-the NCC and not for other stakeholders or partners. Further, they were formulated in general terms that did not allow seeing whether they were well-understood by all stakeholders and decision-makers or not (C). Like screening, scoping was addressed quite early during the CASP and SEA preparation. In the absence of formal requirements, it drew on the collaboratively defined SEA themes, VECs, SEA follow-up objectives and the generic NCC’s planning and EA policies (B).

Regarding the first SEA follow-up activity, SEA follow-up contains several monitoring types, namely monitoring of actual environmental, socio-economic and institutional changes, of actual implementation activities and of other activities related to the CASP implementation. Those are aligned with the CASP’s performance framework, which consists of two sets of indicators, i.e. those to measure the CASP’s success and those related to underlying principles and policies. The environmental aspects are well presented; however, no monitoring roles, methods, or schedules are detailed apart from 5-year reviews, annual reporting, subsequent project EAs, etc. Details are left to lower-level initiatives and the commissioning plan, which in turn is imprecise in this regard. Practically, only those CASP’s parts are implemented, for which the mechanisms for data collection, review and transfer are better established. Financial control becomes a vital enforcing tool. Overall, the design and formulation of SEA follow-up monitoring is graded as D, while its practical implementation receives a higher C.

Quite similar is the performance of SEA follow-up evaluation, which is an inherent part of the CASP monitoring and evaluation program. Its formulation is unsatisfactory (D), while practically it performs better (C). Several evaluation tracks, i.e. the evaluation of the CASP’s performance, conformance of other activities relevant to the CASP and its initiatives, and evaluation of actual changes, trends, factors, were identified as presumably bound to the corresponding monitoring types. Methods and schedules are not documented either in the CASP/commissioning plan or in the SEA. Practically, the collected data are evaluated every 3 months and serve as the basis for amendments. This framework is supported by administrative surveys, the analysis of which aims to improve the CASP and SEA follow-up performance.

Similarly to monitoring and evaluation, only some elements of follow-up management were properly envisioned (D); more details were developed practically (C). Four management types are identified in the CASP performance and follow-up management framework. These are Type I ‘decisions on revising/renewal a PPP’, Type II ‘direct implementation actions’, Type III ‘activities formally controlled’ by the CASP and Type IV. ‘all other decisions and actions, which are affected by’ the CASP. The responsibilities for SEA follow-up decision-making are unspecified. It is not fully clear from the documents if managerial actions draw on monitoring and evaluation results; however, the interviews suggest that in practices it is so.

Communication/reporting is designed and performed better than other SEA follow-up activities. Reporting methods were designed to some extent; however, they do not say much about communicating SEA follow-up and CASP results to the public. Internally, reporting is quite comprehensively developed and implemented according to the combined financial-delivery reporting scheme. The public is not directly involved in the implementation of SEA follow-up and the CASP; yet, it can take part in plan reviews and comment on progress (C/B).

The way the integration of SEA follow-up with the CASP implementation is designed and implemented is rather well performed (B/B). The SEA process informed and influenced the CASP development, and the SEA recommendations and proposals improved the CASP. Follow-up to SEA was suggested to be integrated with the CASP's performance monitoring. While the opinions about the extent to which they are integrated vary, the integration is considered to be reinforced by internal policies in the absence of formal integration schemes.

Despite the absence of a tiered system of targets across the NCC strategies and their SEAs, the objectives, policies and actions of the CASP and its SEA follow-up rather explicitly conform to those of higher- and lower-level initiatives of the NCC and other partners as well as to the international, national and provincial sector specific standards (B/B).

Open stakeholder cooperation and coordination including consensus-building on SEA follow-up method and procedure was envisioned and delivered quite well (B/B). Cooperation among the NCC branches is traditionally strong; nonetheless, it should be noted that at times the level of cooperation with Environmental Services depends on the extent to which the (top/mid-) managers leading the initiatives believe in the usefulness of SEA (4A). The opportunities to cooperate during the CASP and follow-up delivery are coordinated and provided by the NCC, which involves other authorities, agencies, private investors, aboriginal people and the public. Follow-up cooperation builds on the collaboration platform established during the CASP and SEA preparation. Consensus-building on follow-up methods was not that extensive though.

The adaptability of the CASP and SEA follow-up in terms of feeding the information from subsequent decision-making into the CASP is rather well foreseen and actualised (B/B). The CASP and follow-up delivery allow the information from ensuing planning including other NCC's strategies and the relevant sub-CASP levels to be fed into the CASP through its updates. However, due to its 'strategicness', the CASP can fully consider the feedback only at the predefined review points. On the other hand, organisational anchoring is preserved contributing to strengthening the feedback and feedforward loops within the CASP and follow-up implementation and cooperation structures.

Regarding the provisions for response measures to (non)deliberate situations or external changes, the adaptability of the CASP and SEA follow-up also performs well (B/B). Elements of adaptive management are envisioned and practised. The CASP performance management including SEA follow-up is responsive to changes in lower strategies and to external emergent changes and can impose changes to higher strategies. Amendments/reviews are to be undertaken on a case-by-case basis.

Two final adaptability elements relate to the mutual responsiveness of SEA follow-up or the CASP in case the contents of either of them changes. They are envisioned and perform satisfactorily (C/C). First, it is argued that due to the strategic level of the CASP there are no mechanisms or internal regulations that would provide for minor routine changes to SEA follow-up. Lower-level changes can cause amendments to the same level EIAs and follow-up, which in turn can change the CASP including follow-up. However, these changes mostly reach the CASP during the predefined review points. No provisions exist for conducting additional SEA if the CASP is significantly changed. Second, modifications to the CASP can be caused by SEA follow-up monitoring and evaluation including EA and environmental scans of lower initiatives and broader environmental factors. The possibilities to revise the CASP in case SEA follow-up observations reveal unexpected effects are just considered; but the mechanism for this is weaker established than that for 5-year periodical assessments of the need for comprehensive reviews of the CASP (which otherwise shall occur every 10 years).

On the whole, the process SEA follow-up variables of the CASP perform well in such areas as screening, scoping, cooperation/coordination, interior integration, communication/reporting (but not the design of it, which is graded as C), consistency of the SEA follow-up with other strategies, adaptability in terms of feedback from subsequent decisions/actions and responsiveness of SEA follow-up to (non)deliberate or external changes (B or B/B). Several variables, such as monitoring, evaluation and management are unsatisfactorily formulated

(D), but are actually better implemented (C). They nonetheless require improvements as well as such variables as explicitness of SEA follow-up rationales/goals (C) and the responsiveness of the CASP and SEA follow-up in case either of them changes (C/C).

6.2.8 Structural dimension

The review of the nine structural variables is based on the documents, interviews and consultations and is summarised in Table 6-14.

Table 6-14 Performance of the SEA follow-up structural variables in the CASP

Structural dimension	Core Area Sector Plan
Statement of strategy ownership and status of proponents	A
Specified timing and position of SEA follow-up in planning & decision/policy-making cycle/process:	A
➤ in relation to SEA and its strategy formulation and delivery processes	
➤ in the broader context of upper, lower, or horizontal strategies and their EAs	B
Acceptance of roles and responsibilities and accountability in SEA follow-up by relevant stakeholders	B/B
Transparency for SEA follow-up delivery activities	C/B
Commitment (motivation) by responsible stakeholders & acknowledgement of threats of non- implementing SEA follow-up	C/B
Competence (managerial) and adequate resources for SEA follow-up mentioned in PPP/SEA budgets	C/C
Networking for credibility and mutual trust	B/B
Provisions and possibilities for capacity-building (education, training)	C/B

The ownership and statuses of the CASP and SEA follow-up implementers are well defined (A). Namely, the NCC holds a principle ownership for the CASP and its SEA follow-up. It tends to closely cooperate and, to some extent, share the ownership over certain follow-up actions with the federal agencies and private land owners involved in the CASP delivery.

Timing and position of SEA follow-up in planning and decision/policy-making process in relation to SEA and its strategy formulation and delivery are clear-cut (A). The CASP is the first Sector Plan for the Core Area and the third planning exercise, for which the SEA was prepared. Follow-up is performed and reviewed according to the CASP timing. In the broader context of upper, lower, or horizontal strategies and their SEAs, the temporal and positional relations of follow-up are less clear (B). The CASP's SEA fits into the formal tiered system of PPPs and project assessment both downwards and upwards. Its follow-up reveals stronger vertical linkages to higher- and lower-order strategies. The weakness is that the links between the CASP's SEA follow-up and these of other horizontal NCC's strategies are under-defined.

Although the ownership and status of follow-up implementer are evident, the acceptance of roles and responsibilities and accountability in SEA follow-up by the relevant stakeholders suffers from some omissions (B/B). Namely, follow-up roles are not detailed in the CASP;

rather they are internally divided among the CASP implementers and stakeholders based on the existing cooperation. The main CASP implementer-the NCC branch that developed it, takes mid-level responsibility and is accountable for its actions. The whole NCC holds corporate responsibility and accountability for the follow-up and CASP activities. It involves other agencies and governments at all levels to share responsibilities and management functions. Thus, acceptance of roles is rather clear at organisational, but not at personal level.

Whereas the transparency of planning processes was high on the NCC's agenda, measures to ensure a transparent delivery of the CASP and follow-up are underdeveloped; meanwhile, in practice, transparency builds on participatory processes (meetings with the NCC managers and board, reviews), internal and external accountability through reporting, media tools (web-updates, (e)-newsletters, web-posts) and financial/work control by the NCC branches (C/B).

There is a clear commitment to accomplish SEA follow-up as part of the CASP. The NCC also promotes the idea of joint commitment among the stakeholders. No formal non-delivery sanctions are envisioned and neither the CASP nor its SEA mentions the non-implementation threats. Those, nonetheless, are acknowledged and avoided: according to the interviewees, a worsened corporate image and embarrassment to the NCC are the biggest 'penalties' (C/B).

Competence and adequate resources for SEA follow-up are only partially considered in the CASP and SEA (C/C). On the one hand, the feasibility of the CASP and follow-up delivery was addressed early in the planning process mostly based on the funding from the federal government. On the other hand, budgets for follow-up were not specified in the CASP documents. Further, while skills and completeness are sufficient and institutional memory and learning are preserved in the NCC, financial and human resources are limited.

Regarding networking structures, within the NCC, the CASP and follow-up networks are maintained formally and informally by the involved staff. Meanwhile, outside the NCC, networks build on cooperation established for/during the CASP and SEA preparation. The NCC's formal follow-up policies, such as *awareness, integration, recognition of the stakeholders perspectives*, are network-led and support the credibility of the CASP and follow-up as well as that of the NCC itself, contribute to a better cooperation and presumably improve mutual trust among the stakeholders (B/B).

As to the final structural variables, provisions and possibilities for capacity-building (education, training) were developed to a lesser extent, but are being implemented to a larger extent (C/B). Namely, while there are hardly any provisions for training, institutional brokering or capacity-building for SEA follow-up, the interviewees contend that there are

possibilities for learning and training. These, however, do not directly relate to the CASP and follow-up, but are considered as the necessity for them emerges. If needed, the involvement of consultants and capacity-building activities are instigated on a case-by-case basis.

Summing up, the strongest structural SEA follow-up variables are a clear statement of ownership and statuses of the CASP and follow-up implementers and timing and position of follow-up in relation to SEA and the CASP (A). The variables that perform well include timing and position of SEA follow-up in relation to other strategies and their EAs, acceptance of follow-up roles/responsibilities and formal networks (B or B/B). Several elements, i.e. provisions and possibilities for capacity-building, transparency for follow-up, commitment of stakeholders and consideration of non-implementation of follow-up are considered as performing satisfactory/evident to a lesser extent in terms of their formulation and to a larger extent in terms of their delivery (C/B). Finally, the weakest aspect is the unsatisfactorily defined follow-up budgets including limited time, human and financial resources (C/C).

6.3 Summary

This Chapter summarised the analysis of six individual case studies conducted in the UK and Canada. It looked at the performance, existence, design, and implementation of SEA follow-up elements within the cases in accord with the evaluative and explanatory framework. By articulating the gained in-depth understanding of the cases, it laid a ground for a further cross-case analysis in Chapter 7.

CHAPTER 7. CROSS-CASE ANALYSIS AND DISCUSSION

This Chapter examines and interprets the data across six cases through several analytical steps¹²¹. First, it develops the case-ordered construct based on the overall cases performance. It then patterns and contrasts the performance of three SEA follow-up dimensions across cases and looks into the associations between the performance of design and implementation of the elements of the SEA follow-up process and structure. Further, it identifies and discusses strengths vs. weaknesses and similarities vs. differences in the performance, occurrence, and extent of SEA follow-up application (variables). Against this background, it identifies and analyses problems and benefits of SEA follow-up and summarises the cross-case findings.

7.1 A case-ordered summary of SEA follow-up application

At a first glance at the final case grades SEA follow-up performs similarly in all six cases (Table 7-1, column 1). Being weak in one or another aspect, the four UK and two Canadian cases nonetheless demonstrate a rather successful SEA follow-up practice. They were graded as 'B' as per both the author's judgment and calculations (see case-level calculations in Appendix J). This, however, does not mean that the practice of SEA follow-up is equally successful in the UK transport strategies and Canadian forestry and urban planning. To avoid superficial meta-level judgments the individual case calculations were summarised taking into consideration the within-case information, case backgrounds and normalised values as explained in Chapter 3. As a result, a case-ordered summary of SEA follow-up performance was compiled placing the cases in order from best to worst performing (Table 7-1, column 2).

Table 7-1 Final grades and values by case, decreasing order

	Final grade	Final value*
	1	2
Merseyside LTP, UK	B	4.12
Blackburn with Darwen LTP, UK	B	4.02
PP FMP, SK, Canada	B	3.97
Lancashire LTP, UK	B	3.87
Blackpool LTP, UK	B	3.76
CASP, ON/QU, Canada	B	3.58

{3.5-4.49}="B" Good performance with only minor omissions or weaknesses/Evident or existent to a large extent

¹²¹ This Chapter aims to achieve Task 3b (Obj. 3): to identify and analyse strengths, weaknesses, similarities, differences, problems and benefits of SEA follow-up across cases and to contribute to Task 3c (Obj. 3): to validate the findings of 3b) through synthesising them with the survey and theoretical findings.

The differentiation shows that the SEA follow-up of the Merseyside LTP Pilot case study holds the top position among the cases as it obtained the highest score on the overall follow-up performance (4.12). It is followed by the Blackburn with Darwen LTP and the Pasquia-Porcupine FMP in Saskatchewan that showed the lower scores (4.03 and 3.97 respectively). The worse performing cases, though still generally good, are the Lancashire and Blackpool LTPs in England (3.87 and 3.76) and the Canadian CASP with the lowest score of 3.58.

The leading position of the Merseyside case is not surprising; rather it is consistent with the analysis by e.g., Fischer (2004b; 2006) who found the old MerITS and its HIA to be a good-practice case, and this confirms the reason why the case was chosen to be a Pilot study. What is surprising is that it is quite closely followed by other cases and that all cases fall into the well performing 'B' category. This may be partially explained by the careful selection of the cases according to the predefined variables and by the scarcity of SEA follow-up practice internationally, implying that if it exists, it is performed relatively well (see Chapter 3).

As argued in Chapters 2 and 4, the specific nature of SEA follow-up and success of its performance, which links back to its potential utility, are largely predefined by, and result from the performance of the proposed framework's constituents. Looking into the details and elements of SEA follow-up cases can help better understand the characteristics and behaviour of the follow-up phenomenon. Given this consideration and that the quality of cross-case analysis depends on the understanding and coherence of information from individual cases, the cross-case SEA follow-up analysis extends to include dimensions-wise comparisons, performance differences between the design and implementation stages, etc. (see further).

7.2 *Performance of SEA follow-up dimensions across cases*

Moving one level lower the analytical hierarchy reveals details useful for patterning and contrasting the SEA follow-up dimensions across cases (Figure 7:1).

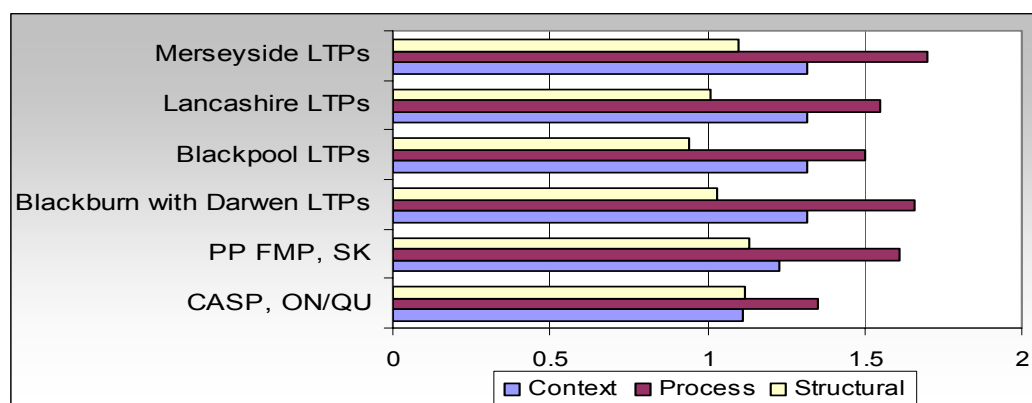


Figure 7:1 Comparing performance of SEA follow-up dimensions across cases

NB: This figure is based on normalised values along the x-axis (see explanations in Chapter 3, for individual case calculations and a background numerical table see Appendix J).

In all six cases, the process SEA follow-up dimension demonstrates a better performance than the structure or context¹²². The behaviour and performance of the process variables is what largely predetermined the final grades and the obtained case-ordered construct. Indeed, comparing and ordering the cases as per the process dimension gives the same results as in [Table 7-1](#). Namely, the Merseyside LTP has a leading performance, followed by the Blackburn with Darwen LTP, FMP, Lancashire LTP, Blackpool LTP, and CASP.

Meanwhile, the performance or development state of the context and structure do not follow this order across cases. In particular, for the context dimension, all UK cases obtained the same high score, whilst the Canadian cases showed a weaker performance ([Figure 7:1](#)) mostly due to the less developed legislative and guiding SEA/follow-up bases and enforcement system (see 'strengths' below). Meanwhile, in terms of the overall follow-up performance the Saskatchewan FMP is somewhat stronger than the Lancashire or Blackpool LTPs ([Table 7-1](#)).

A striking contrast is noted in relation to the performance of the structural SEA follow-up dimension, where the Canadian FMP and CASP demonstrate slightly better scores overtaking the Merseyside LTPs. Thus, the best performing case and the worst performing case in terms of the overall SEA follow-up performance appear at almost the same stage in terms of their structural dimensions. This can be explained by the special attention paid in the Canadian setting to the structural elements such as transparency, acceptance of roles, networking during follow-up, or accountability (see Chapter 6 & [Appendix I](#) for detailed analysis and sections below for comparisons and explanations). Except for this conspicuous deviation, the structural follow-up performance for the remaining cases is more or less consistent with the general ordering, i.e. the Blackburn with Darwen LTP performs better than the Lancashire LTP, which in turn performs better than the Blackpool LTP ([Table 7-1](#) & [Figure 7:1](#)).

¹²² This is not because the structure and context had equal and slightly smaller 'default weights' assigned to them as compared to the process (see Chapter 3). Theoretically, if either the structure or context performs mostly well ('A's) or with some omissions ('B's) with the process performance being fixed (or worse), it will be either structure or context that would determine the overall performance of SEA follow-up.

7.3 Cross-case associations between the performance of SEA follow-up design and implementation

As explained in Chapter 4, the differentiation is drawn between the design and implementation of the process and structure variables of SEA follow-up, and both design and implementation aspects of the variables are analysed at micro-case level (Chapter 6, [Appendix I](#))¹²³. A special interest rests with the questions: What kind of patterns emerge in terms of the design and implementation performance? And which of the two stances of the SEA follow-up dimensions condition their better performance? [Table 7-2](#) presents a summary of cross-case associations between the performance degree of design and implementation within the process and structural SEA follow-up dimensions.

Table 7-2 Cross-case associations between design and implementation of the SEA follow-up process and structure

Averaged value * Averaged grade	Context		Process		Structure	
			Design	Implementation	Design	Implementation
Merseyside LTP	4.4	B	4.27 B	4.21 B	3.33 C	4 B
Lancashire LTP	4.4	B	3.73 B	4 B	3.17 C	3.56 B
Blackpool LTP	4.4	B	3.73 B	3.79 B	2.83 C	3.44 C
Blackburn with Darwen LTP	4.4	B	4.18 B	4.14 B	3 C	3.89 B
PP FMP, SK	4.1	B	3.91 B	4.14 B	3.67 B	3.89 B
CASP, ON/QU	3.7	B	3.18 C	3.57 B	3.33 C	4.11 B
*{4.5-5}="A"	Good performance in general with no weaknesses or omissions/ Fully evident/existent			Design value smaller than implementation/state value		
{3.5-4.49}="B"	Good performance with only minor omissions or weaknesses/ Evident/existent to a large extent			Design value greater than implementation/state value		
{2.5-3.49}="C"	Satisfactory performance with some omissions or weaknesses/ Evident/existent to a lesser extent					

When exploring the cross-case associations in-between the design and implementation, the following patterns can be identified:

➤ For the process dimension of follow-up, the Merseyside and Blackburn with Darwen LTPs are the only cases where the follow-up preparatory stage obtains greater scores than the implementation stage. Particularly, the comparison across cases shows that the Merseyside and Blackburn with Darwen LTPs - the cases with the highest scores for the process

¹²³ No differentiation is drawn between the design and implementation of the context SEA follow-up variables, as they can be either non-existent or existent (to some extent) and affect an initiative, while being out of its control. It should be noted that while the grades for the contexts of all six cases are 'Bs', the averaged values point out to the distinction between them (see values and grades in [Table 7-2](#)).

dimension - proposed a well designed follow-up (4.27 and 4.18, [Table 7-2](#)). They, however, realised it worse than they expected. Nonetheless, their follow-up implementation remained amongst the highest-scored cases for implementation. This can be partially explained by the aspirations for innovations and high standards set by the developers for the LTPs' and follow-up delivery as well as by some external influences and real-life corrections (see [Point 8.2.3.5](#));

➤ It is striking to note that the structural variables for all cases were envisioned to a less extent/designed worse than they actually perform or are delivered ([Table 7-2](#)). One reason for this could be a more 'relaxed' attitude of SEA follow-up proponents to the structural aspects as opposed to their more 'thoughtful' attitude towards the 'more central' process components;

➤ Overall, the design component of the follow-up structure reveals a weaker performance across cases than the implementation component. That is, apart from the FMP, which obtained 'B' for design, all other cases demonstrated only the satisfactory 'C' level of elaboration of design ([Table 7-2](#)).

➤ Ultimately, except for the design component of the Merseyside and Blackburn with Darwen follow-up process, it is the greater values of the *implementation* of SEA follow-up that likely preconditioned a better performance of the process and structural dimensions.

7.4 Differences vs. similarities and strengths vs. weaknesses

7.4.1 Context dimension

This level of analysis allows identifying and discussing differences and similarities and strengths and weaknesses within the context dimension across the SEA follow-up cases while keeping the general picture in focus. It provides for a deeper understanding of the performance or state of the context variables, which overall demonstrated a good performance ('Bs' for all cases; compare the context data in [Table 7-2](#) & [Table 7-3](#)). The key findings made in this dimension of SEA follow-up follow.

Table 7-3 Cross-case performance of the context SEA follow-up variables (& similarity test)

Context dimension variables	Mersey-side LTP	Lancashire LTP	Blackpool LTP	Blackburn with Darwen LTP	PP FMP, SK	CASP, ON/QU
Existing planning, policy-making practice & SEA system: ➤ Planning type & policy framework for SEA/follow-up	B - Hierarchical planning system; - Trend towards decentralization of decision-making power; - Frequent planning & administration reforms				B - Clear hierarchy of forest planning system - Sector-specific SEAs in province since 1996; - Limited policy & formal framework for SEA/follow-up	A - Clear hierarchy of land use planning in NCC; - Established policy framework for systematic SEAs
➤ Political	A				B	B

Context dimension variables	Mersey-side LTP	Lancashire LTP	Black-pool LTP	Blackburn with Darwen LTP	PP FMP, SK	CASP, ON/QU
commitment to SEA/follow-up & influence	- Traditional commitment to SA, HIA environmental appraisal; - Since 2004 reinforced by statutory SEA/SA regulations				- Political commitment to sustainability, integrated planning & SEA, but only in Saskatchewan forestry sector	- Political commitment to sustainability/EA, but no federal SEA regulations; - NCC's commitment to SEA for all initiatives
➤ Socio-economic pre-conditions for SEA/follow-up	B - Prioritised economic regeneration & growth; - Resources for SEA/SA secured as per regulations & guidance, are scarce; - Growing environmental awareness				B - Private proponent to secure means for SEA/follow-up - Hard to consider various econ. conditions, social & cultural concerns of (non)Aboriginals	B - SEAs & follow-up are part of regional priorities - Public interest in SEA/the environment & favouring socio-economic processes
Formal provisions for SEA & follow-up: ➤ Legislation & regulations	A Legislation requires SA/SEA & SA/SEA monitoring				B - Legal provisions only for EA follow-up of FMPs, but not for SEA follow-up in general; - Normally, binding case-specific approval conditions	D - No legislated requirements for SEA; - NCC relies on federal project-level regulations & Ontario provincial law
➤ Manuals, guidelines & guidance for SEA/SA/SIA	A - Extensive SEA/SA & planning guidance requires monitoring/follow-up schemes; - Guidance on how to integrate SA, SEA & NATA & establish monitoring frames for local/regional (transport) plans				C - Limited guidance for SEA/follow-up; - SE consults/assists during the EA process & issues case-specific guidelines	C - insufficient provisions for follow-up in federal & NCC SEA guidances; - The CEAA supports SEA practice
➤ Enforcement & compliance mechanisms	C Not strong				C - Not strong - SE strives for enforcement via the EA Act, the FRMA & approval conditions	C - Not strong; - Federal agencies/crown corporations responsible for self-enforcing
➤ Formal distribution of responsibilities	B Generally outlined formal roles in SEA/SA and monitoring				A Formally defined main actors' roles in the EA/FMP	A - Formally outlined; - NCC's more detailed internal allocation
Formal compliance with sustainability principles	A - Clear provisions to consider sustainability; - Explicit compliance of transport strategies' visions/objectives with sustainability principles				A - EA follow-up in FM relies on sustainability-led policy & laws; - Clear compliance with targets/principles of the province's Sustainable FM	A - NCC's monitoring & management schemes guided by sustainability; - Compliance with federal & internal sustainability policies
Possibility to incorporate SEA follow-up results in revised/updated/new strategies/plan. cycles	A - Clear provisions in planning & SEA/SA guidances for fitting SEA/SA follow-up results in ensuing planning; - Planning system adaptive to feedback				A - Adaptive forest planning; - feedforward of results of SEA follow-up as part of FMPs monitoring/adaptive management	B - Not explicit adaptive planning & management; - NCC uses SEA follow-up for reviews & amendments
Integration of SEA follow-up with existing monitoring systems	B More systematic, coherent & organised 'exterior' integration after 2004-2005 & during the 2 nd LTPs				B - Good integration of FMP follow-up with the existing provincial monitoring; - Issue is data computability	D - Nearly absent; - The CASP can utilise the existing NCC's/other agencies' monitoring data
Significant difference (+/-3 grades)		Moderate difference (+/- 2 grades)		Insignificant (+/-1 grade) and no difference		

7.4.1.1 *Differences vs. similarities*

As the analysis in Chapter 6 and Appendix I prove, the context SEA follow-up variables for the Merseyside, Lancashire, Blackburn with Darwen and Blackpool LTPs share quite similar characteristics or are in the same development stage¹²⁴. A different picture is observed in the context conditions of the Canadian strategies, where four out of 10 variables reveal distinct features (Table 7-3). This can be explained by differing systems of administrative and planning jurisdictions, which are more homogenous in England, especially given that all LTPs are in North West, and more diverse in Canada, where each province is in charge of its legislative, planning, and policy frameworks.

The grades assigned to each variable demonstrate that the performance of the individual cases against the most context variables differs insignificantly or do not differ; two variables differ moderately and only one significantly (colour marking, Table 7-3):

- The greatest difference is in the (extent of) existence of legal provisions. Its performance oscillates from ‘A’ in case of the LTPs (where there is a strong legal basis for SEA/follow-up) and ‘B’ in case of the FMP (follow-up was regulated not by the provincial EA laws, but rather by sector-specific laws and case-specific binding terms) to ‘D’ in case of the CASP (the SEA was developed in the absence of federal legal provisions for SEA and relied on follow-up provisions in the Canadian EA Act for projects, Cabinet SEA Directive and Ontario EA Act).
- Two moderately differing variables are ‘manuals and guidance for SEA/follow-up’ and ‘integration of follow-up with existing monitoring systems’. In relation to the former, the UK has an extensive body of planning and SEA/SA guidance documents that require follow-up, monitoring and reporting for LTPs. Meanwhile, the Canadian provincial and federal contexts as well as the NCC provide limited SEA guidance especially in terms of monitoring/follow-up. In relation to the latter, efforts have been undertaken in the last 5 years in the UK to harmonise the national monitoring systems with those of the counties. Quite favourable conditions for exterior integration have led to a better organised and systematic integration during the second LTPs. Similarly, quite clear provisions for integrating the FMP performance management and follow-up with the existing provincial monitoring frameworks are set out in Saskatchewan forestry. The worst context conditions in this respect are noted in the National Capital Area; where underlying harmonisation processes are nearly absent. This

¹²⁴ The only difference concerns the last context variable - exterior integration (see Chapter 6 or Appendix I).

is partly due to the difficulties the NCC faces when it has to consider different monitoring systems located on its lands, but operated according to the differing provincial rules of Ontario and Quebec.

➤ Four variables differ insignificantly in enabling the SEA follow-up practice:

- Namely, in terms of planning/policy-making traditions and SEA all six cases are similar in that there are clear hierarchies of sectoral planning and working SEA systems; but slightly differ with regard to the ability of existing planning systems for systematic and cross-sectoral accommodation of SEAs (the FMP, B & the CASP, A) and frequent planning reforms that seem to hinder the SEA/follow-up routinisation (four LTPs, Bs).
- The context for all cases demonstrated traditional political and administrative commitment to SEA and other EA forms, which was reinforced by the comprehensive and all-sectors-wide statutory provisions in the UK (As), forestry-specific provisions and commitments in Saskatchewan (B) and the NCC's internal commitments/rules (B).
- 'Distribution of responsibilities' is outlined in the legal and guiding documents for all cases; however, while the parties' follow-up obligations are further detailed in the formal FM Agreements between the Government and the proponents (the FMP, A) and in the NCC EA guidelines (the CASP, A), they are not formally detailed for LTPs (Bs).
- Finally, the planning and policy frameworks for FMPs in Saskatchewan and LTPs in the UK explicitly possess the features of adaptive systems that envision feeding the SEA follow-up results as part of LTP/FMPs to future initiatives (LTPs & FMP, As). The adaptiveness of the federal planning/management frameworks is not that evident, which is contra-balanced by the internal, conventional NCC's planning rules (the CASP, B).

➤ There are three similarly performing variables across cases, particularly:

- For all six cases rather favourable socio-economic preconditions exist streamlined by soft/hard regulations and growing public interest in the environmental consequences of strategies (Bs). The socio-economic processes suffer from such issues as limited economic resources (all cases), a prioritised economic growth over the environment (LTPs), hitches in aggregating and balancing distinct, if not conflicting, socio-economic and cultural values of non-Aboriginal & Aboriginal communities (FMPs), and a limited aspiration to sustainably manage the lands under the NCC's jurisdiction (the CASP).
- Another similarly performing context variable is the weak enforcement and compliance mechanisms for SEA/SA/follow-up (Cs). It suffers from a lack of formal provisions,

bodies responsible for enforcement, quality control, clear responsibilities for central monitoring of compliance, continual improvement of SEA/SA process (all cases), and legal requirements for SEA/follow-up (Canada) (see [Appendix I](#) for details).

- ‘Formal compliance with sustainability principles’ reveals a similarly good performance across cases (As). This is preconditioned by the provisions to consider the existing sustainability-led policy, planning, and sectoral standards frameworks in the strategies, their SEAs and actual delivery, including follow-up.

7.4.1.2 *Strengths vs. weaknesses*

Based on the case-wise analysis, the strengths and weaknesses of the context dimension across the six SEA follow-up cases are identified and summarised in [Table 7-4](#). The main contextual strengths of LTPs that enable a successful practice of SEA follow-up are stronger political commitment to SEA/follow-up, comprehensive legal provisions, abundant guidance, general compliance of LTP2s to sustainability principles of legal and national, regional, local policy frameworks and openness of LTP2 planning system to SEA follow-up results.

Similarly, the key strengths of the context dimension for follow-up to Saskatchewan forestry are the compliance of FMPs to sustainability principles of national/provincial/local policy, normative and legal frameworks and adaptiveness of FM and the planning system in terms of considering SEA follow-up results in subsequent planning. Unlike the UK cases, another strong context facet in Saskatchewan and in the CASP is a clear formal distribution of roles and responsibilities of actors in FMPs, EA, and follow-up processes. Additionally, the core strengths of follow-up context in the Canada’s National Core Area and NCC are the obvious formal compliance of the NCC’s and CASP SEA follow-up with sustainability principles at various planning, policy and legislative levels and rather explicit ability of the NCC planning process to feed SEA follow-up findings forward to future actions.

Table 7-4 Strengths and weaknesses of SEA follow-up cases: context

	Strengths	Weaknesses
Merseyside LTP	<ul style="list-style-type: none"> • Political commitment • Clear legislated provisions 	<ul style="list-style-type: none"> • Weak enforcement & compliance mechanisms
Lancashire LTP	<ul style="list-style-type: none"> • Abundant guiding document 	<ul style="list-style-type: none"> • Obscure formal distribution of responsibilities
Blackpool LTP	<ul style="list-style-type: none"> • Good compliance to sustainability principles of policy & legal frameworks 	<ul style="list-style-type: none"> • Just evolving integration of SEA follow-up with existing monitoring systems
Blackburn with Darwen LTP	<ul style="list-style-type: none"> • Explicit ability of (transport) planning system to feed forward SEA follow-up results 	
PP FMP, SK	<ul style="list-style-type: none"> • Perspicuous formal distribution of roles of actors in FMPs and SEA follow-up • Good compliance of FMPs to sustainability principles of policy, normative & legal frameworks 	<ul style="list-style-type: none"> • Deficient legal provisions for SEA/follow-up • Only forest sector-specific policy framework & political commitment to SEA/follow-up • Limited manuals & guidelines for

	Strengths	Weaknesses
	<ul style="list-style-type: none"> • Explicit adaptiveness of FM & planning system in terms of incorporating SEA follow-up results in future planning 	SEA/follow-up <ul style="list-style-type: none"> • Weak enforcement & compliance mechanisms • Technical issues hindering exterior integration
CASP, ON/QU	<ul style="list-style-type: none"> • Clear formal distribution of roles in SEA/follow-up process • Obvious formal compliance of the NCC's and CASP/SEA follow-up with sustainability principles • Quite explicit adaptiveness of planning system to SEA/follow-up results 	<ul style="list-style-type: none"> • Deficient legislated provisions & regulations for SEA/follow-up • Limited manuals & guidelines for SEA/follow-up • Weak enforcement & compliance mechanisms • Nearly absent integration of SEA follow-up with existing monitoring systems

Strength or weakness similar for ALL cases

Regarding the weaknesses in the context of follow-up, the similar drawbacks across cases include barely satisfactory enforcement and compliance mechanisms and insufficient to nearly absent integration of SEA follow-up with existing monitoring systems (Table 7-4). Furthermore, follow-up in the UK context to some extent suffers from the unclear quality control and formal distribution of responsibilities/roles in follow-up. In contrast to the UK cases, the follow-up context of the Canadian cases is weakened by deficient legal provisions for SEA/follow-up and imperfect guidance. Finally, the Saskatchewan context lacks policy frameworks for, and political commitment to, SEA/follow-up in sectors other than forestry.

7.4.2 Process dimension

In the same way as for the context, lowering the level of analysis for the process dimension helps distinguish differences and similarities, and strengths and weaknesses across cases for a better understanding of the overall grades for design (C for the CASP; Bs for other cases) and implementation (Bs for all cases) (compare process dimension, Table 7-2 and data in Table 7-5). The main findings in this dimension of SEA follow-up are below.

Table 7-5 Cross-case performance of the process SEA follow-up variables (& similarity test)

Process dimension variables	Merseyside LTP	Lancashire LTP	Blackpool LTP	Blackburn with Darwen LTP	PP FMP, SK	CASP, ON/QU
Explicit statement of SEA follow-up goals/rationales for different planning tiers & decision-makers	B	A	A	C	A	C
Screening at the earliest stages of SEA & strategy development	A	A	A	A	B	B
Scoping at the earliest stages of SEA & strategy development	B	B	C	B	A	B
Formulation & implementation of SEA follow-up steps: types, design, method inter-coherence & roles:	A/B	C/C	B/C	B/B	C/B	D/C
➤ Monitoring						
➤ Evaluation	B/B	C/C	C/C	B/B	C/B	D/C

Process dimension variables	Merseyside LTP	Lancashire LTP	Blackpool LTP	Blackburn with Darwen LTP	PP FMP, SK	CASP, ON/QU
➤ Management	B/B	C/C	C/C	B/B	B/B	D/C
➤ Communication	A/A	A/A	A/A	A/A	A/A	C/B
Integration of SEA follow-up with the strategy implementation	A/A	B/B	C/C	B/B	A/A	B/B
Consistency of SEA follow-up targets & standards with those of upper, lower, or horizontal PPPs	A/A	A/A	A/A	A/A	B/B	B/B
Assurance of open stakeholder cooperation & coordination incl. consensus-building	A/A	A/A	B/B	A/A	B/B	B/B
Adaptability of PPP & SEA follow-up to ensure:	B/B	B/B	B/B	B/B	B/B	B/B
➤ feedback from later decision-making to the initial PPP within SEA follow-up						
➤ provisions for response measures to (non)deliberate situations/external changes	B/B	C/B	B/B	C/C	C/C	B/B
➤ revision of SEA follow-up if the contents of a PPP changes	C/C	C/C	C/C	B/B	B/C	C/C
➤ revision of a PPP if SEA follow-up reveals unexpected impacts	C/C	C/C	C/C	B/B	B/B	C/C

Significant difference (+/-3 grades) Moderate difference (+/- 2 grades) Insignificant (+/-1 grade) and no difference

7.4.2.1 Differences vs. similarities

Table 7-5 shows that compared to the context dimension there is a greater variance in the performance of the process variables across cases. In fact, according to the grades assigned to them (for details see Appendix I & Chapter 6) it can be inferred that the process SEA follow-up variables for the six cases share similar performance features only for one variable out of 14. The performance of six variables across cases differs insignificantly, while the difference is moderate and significant for six and one variables respectively (colour marking, Table 7-5):

➤ The biggest difference amongst the cases is in the performance of the key SEA follow-up component-monitoring, especially in terms of its design (from A/B for the Merseyside LTP to D/C for the CASP). Table 7-6 summarises SEA follow-up monitoring tracks pointing out the key differences/similarities as well as gaps.

Table 7-6 Summary of SEA follow-up monitoring types across cases

	A. Monitoring of actual environmental, socio-economic and institutional changes relevant to:			B. Monitoring of actual delivery of strategy actions	C. Monitoring of other activities related to the strategy delivery
	1. broader context of the strategy formulation&delivery	2. progress towards strategic goals	3. strategy's actual impacts		
Merseyside LTP	X (not detailed; some derivatives performed, e.g., 'target-free' monitoring)	X	X	X	X (not detailed; informally performed)
Lancashire	X (limited)	-	X	X	X (not

	A. Monitoring of actual environmental, socio-economic and institutional changes relevant to:			B. Monitoring of actual delivery of strategy actions	C. Monitoring of other activities related to the strategy delivery
	1. broader context of the strategy formulation&delivery	2. progress towards strategic goals	3. strategy's actual impacts		
LTP					envisioned; informally performed)
Blackpool LTP	X (limited)	X (mentioned, not detailed)	X	X	X (not developed; informally performed)
Blackburn with Darwen LTP	X (limited, <i>SA follow-up suggests to monitor the relevant studies/baseline research of the Council</i>)	X (envisioned, but unclearly linked to SA)	X	X	X (not envisioned; informally performed) <i>Contra-suggestion: to monitor LTP via other Council actions</i>
PP FMP, SK	X (limited)	X	X	X (& compliance)	X (not envisioned informally performed)
CASP, ON/QU	X	-	-(performance reviews conducted)	X	X

X'-present, '-'-absent.

Interestingly, all cases have to some extent envisioned and/or attempted to implement follow-up monitoring of the broader context (A1.), of actual implementation of activities within the strategies (B.), and of other activities related to the strategies (C.), often ad-hoc. Type A3. monitoring of actual impacts of the strategies is considered in all cases except the CASP. This can be partially because the CASP's proponents perceive it as a quite high-level strategy with no immediate actual impacts; nonetheless, the performance reporting is envisioned. Type A2. monitoring is considered in the Merseyside LTP, FMP, and to some extent in the Blackpool and Blackburn with Darwen LTPs; it is not envisioned for the Lancashire LTP and CASP. These factors alongside the varying follow-up monitoring methods and schedules mostly bring about the significant difference within the performance of this variable.

➤ Six moderately differing variables include the statement of SEA follow-up goals, early scoping, evaluation, management, communication, and interior integration ([Table 7-5](#)):

- First, the FMP, Lancashire and Blackpool LTPs have clearly formulated follow-up goals and rationales understood and supported by the key stakeholders (As). The minor distinction between them is that setting SEA follow-up goals for the UK cases is mostly guided by the national requirements/guidance, while for the FMP they were formed in both top-down and bottom-up ways. The vague links between the goals of SEA/HIA follow-up and those of the Merseyside LTP performance monitoring make them less

clear (B). Blackburn with Darwen lists several internationally accepted objectives for follow-up, but does not make them case-specific (C). The CASP is also not specific about its follow-up goals, which limits their understanding by the stakeholders (C);

- Second, the performance of scoping of the FMP SEA follow-up dominates over that of other cases. It was conducted early and the follow-up issues were formally pre-defined (A). Scope for SEA follow-up was outlined during the strategy and EA preparation for the CASP and Merseyside, Lancashire and Blackburn with Darwen LTPs (Bs). Only in the case of the Blackpool LTP did scoping variables perform worse, mostly because follow-up issues were defined after the provisional LTP had been completed (C)¹²⁵.
- Third and fourth, in terms of follow-up evaluation and management the performance of all cases, but the FMP, is identical and consistent between design and implementation (the Merseyside and Blackburn with Darwen LTPs- B/Bs; the Lancashire and Blackpool LTPs-C/Cs; the CASP-D/C and the FMP-C/B for evaluation & B/B for management) (Table 7-5). The summary of SEA follow-up evaluation tracks is compiled to see the key differences and similarities and to test the consistency of the identified evaluation tracks with the identified monitoring types (Table 7-7)¹²⁶. According to it, all six cases envision and practice evaluation of impacts of a strategy and of its performance in consistency with the corresponding monitoring tracks (see Table 7-6; also Chapter 2). The least envisioned/practised evaluation is that of conformance of other activities relevant to the strategies under examination. In respect to this evaluation track, the CASP is *somewhat* consistent with the monitoring findings, since its follow-up evaluation does not envision appraisal of what is proposed/implemented for monitoring.

Table 7-7 Summary of SEA follow-up evaluation tracks across cases (& consistency test)

	Actual changes, trends, factors, scenarios, etc.	Goal-achievement	Impacts of a strategy	Performance of a strategy	Conformance of other activities relevant to a strategy
Merseyside LTP	- (not explicit)	X	X	X	X
Lancashire LTP	- (tends to evaluate, ad-hoc measures)	X	X	X	X
Blackpool LTP	X	X	X	X	-
Blackburn with Darwen LTP	-	X	X	X	-

¹²⁵ It is noteworthy that the late scoping for follow-up of the Blackpool LTP has not significantly influenced the quality of the key follow-up activities, which is visible from contrasting the grades for scoping with these for monitoring, evaluation, management, and communication (Table 7-5).

¹²⁶ The relationships between the SEA follow-up elements identified when examining the state-of-the-art SEA follow-up served as the benchmark for the consistency test (see Chapter 2).

	Actual changes, trends, factors, scenarios, etc.	Goal-achievement	Impacts of a strategy	Performance of a strategy	Conformance of other activities relevant to a strategy
PP FMP, SK	-	X	X	X	-
CASP, ON/QU	X	-	X	X	-

'X'-present, '-'-absent.

Inconsistent with monitoring findings (based on literature analysis, Chapter 2)	Somewhat consistent with monitoring findings	Consistent with monitoring findings
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The Lancashire LTP is the only case with inconsistencies with monitoring findings; i.e. it plans and implements the evaluation of goal-achievement and exterior conformance in the (virtual) absence of the corresponding monitoring measures. The FMP, CASP, Blackpool and Blackburn with Darwen LTPs are 'somewhat consistencies' as they tend to elaborate and practise those evaluation forms, for which monitoring is not considered and vice versa (Table 7-7). Overall, the most frequent evaluation tracks across cases are evaluating the impacts of strategies, their performance and goal-achievement.

- As to the fourth moderately distinct variable- management- the FMP, Merseyside and Blackburn with Darwen LTPs reveal a rather good performance of both design and implementation aspects, including elaborated methods, work schedules, etc. (B/B). The Lancashire and Blackpool LTPs are less detailed in terms of decision-making roles, mandates, and methods (C/Cs). So is the CASP, which also suffers from formally vague links between managerial actions and monitoring and evaluation results. The latter though seems to be clearer in practice (D/C) (Table 7-5). Table 7-8 summarises SEA follow-up management types, shows the key differences and similarities and tests the consistency of the identified management types against the identified evaluation tracks.

Table 7-8 Summary of SEA follow-up management types across cases (& consistency test)

	I. decisions on revising & amending a strategy	II. direct implementation actions/decisions	III. decisions/actions implemented by other actors but controlled by a strategy	IV. other actions/decisions affected by a strategy
Merseyside LTP	X (annually done, to be clearer after 2011)	X	X	-
Lancashire CC LTP	X (annually done, to be clearer after 2011)	X	X	-
Blackpool LTP	X (annually done, to be clearer after 2011)	X	X	-
Blackburn with Darwen LTP	X (annually done, to be clearer after 2011)	X	X	-
PP FMP, SK	X	X	X	-
CASP, ON/QU	X	X	X (but consistent with monitoring findings)	X

'X'-present, '-'-absent.

Inconsistent with evaluation findings (based on literature analysis, Chapter 2)	Consistent with evaluation findings
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According to [Table 7-8](#) the picture is rather homogenous: all six cases (to some extent) envision and practise follow-up management types I, II and III; none of them, but the CASP, envisions type IV management activities. This, however, does not mean that decisions of this type do not occur at all. Rather this somewhat conforms to the assumption of Cherp *et al.*(forthcoming) that type IV actions lack *a priori* known, formal and easily traceable links with the original initiative (Chapter 2, Point 2.5.4).

Overall, the findings here are consistent with the evaluation and monitoring findings relative to all management types with the exception of type III. Notably, [Table 7-8](#) demonstrates that four out of six cases envision and/or implement Type III actions controlled by the strategies, whereas they do not conduct the theoretically necessary monitoring and evaluation actions (compare [Table 7-7](#), [Table 7-8](#) & [Table 7-6](#)).

A rather high level of inconsistency, especially given that the CASP shows consistency of management with monitoring measures skipping the relevant evaluation, required re-visiting both empirical and theoretical findings. To recall, the theoretical analysis assumed a certain relation between the SEA follow-up elements (Chapter 2, [Figure 2:2](#)). The repeated inquiry into the relationships between management, evaluation and monitoring and the additional consultations show that it is not only ‘exterior conformance evaluation’ that can feed Type III decision controlled by a strategy. Rather, it can also be fed by monitoring and evaluation from the ‘goal-achievement’ and ‘performance of a strategy’ tracks. Thus, in relation to this aspect, the relationships portrayed in [Figure 2:2](#) do not prove to be fully relevant to the practice.

- The fifth moderately differing variable - SEA follow-up communication and reporting- shows exceptionally good performance across cases in both the way it is envisioned and delivered (A/As for all cases except the CASP, which is C/B) ([Table 7-5](#)). Reports, web-sites, forums, action/scheme-specific updates, revisions-related presentations and hearings, phone interviews and e-surveys are used to inform the stakeholders/public and engage them in the strategy and follow-up delivery. The communication/reporting of the CASP is less developed in terms of methods and follow-up purposes and practically relies on ex-ante communication of the subsequent related and CASP’s daughter actions (see Chapter 6 & [Appendix I](#)). Overall, *communication seems to be the most elaborated and best delivered among the key follow-up activities.*
- Finally, regarding interior integration ([Table 7-5](#)), the Merseyside LTP and FMP lead with EA recommendations and mitigation being clearly incorporated in the strategies

during the planning process and with follow-up activities being integrated with the strategies performance/compliance monitoring (A/As). The Lancashire and Blackburn with Darwen LTPs, and CASP also perform well, though they are less clear about how the SEA results and follow-up proposals are fed into the LTP performance management (B/Bs). The Blackpool LTP shows only satisfactory performance as in addition to vague links between the LTP performance management scheme and follow-up proposal, it is obscure how the SEA recommendations and mitigation/enhancement measures were included in the LTP (C/C). This can be partly explained by the late SEA process and moderately effective planning-assessment integration mode (see Chapter 6).

- Six variables that differ insignificantly across cases are screening, consistency, cooperation and adaptability of SEA follow-up and PPPs in terms of response to deliberate or emergent changes, and revisions of SEA follow-up and strategy if either of them changes.
 - First, the performance of screening is homogenous country-wise. The four LTP cases perform well (As) (Table 7-5), which can be explained by the legislated requirements for SEA/SA monitoring, evaluation, and reporting. A rather good performance of this variable in follow-up to the FMP and CASP is also mostly due to the formal and ‘soft’ provisions and case-specific guidelines (Bs). Thus, overall the main stimulus for deciding on the need for follow-up is the proper legal or guiding documents.
 - Second, consistency of SEA follow-up targets and standards with those of upper, lower, or horizontal strategies are well approached and delivered by the UK strategies (A/As) and less well planned and delivered in the two Canadian cases (B/Bs). The latter perform weaker mostly due to obscure or only partial consistency with horizontal strategies.
 - Third, in contrast to the clear-cut country-dependent performance of screening, assurance of cooperation, participation, coordination and consensus-building for SEA follow-up does not seem to be country- or context-dependent. The three UK cases, except Blackpool, overtake other cases (A/As), mostly owing to the carefully planned and maintained in-council(s) (inter-departmental) cooperation on the LTP/follow-up delivery issues, strong coordination and cooperation among the key proponents, local private and public bodies, and neighbouring councils and agencies and a consensus-building process on some LTP and SEA follow-up methods. The Blackpool LTP, FMP and CASP are less successful in planning and delivering participatory elements of SEA follow-up (B/Bs). The key reasons behind this are weak consensus-building on SEA follow-up (Blackpool

and the CASP) and limited cooperation with and involvement of Aboriginal communities (the FMP).

- Forth, none of the cases perform well in terms of adaptability of SEA follow-up and PPPs to ensure a timely response to deliberate/emergent changes. However, this is not to say that this aspect is overlooked in the design or implementation of strategies and follow-up. Rather the CASP and Merseyside and Blackpool LTPs perform relatively well as they envision/practise (some form of) adaptive management and endeavour to keep the strategies' performance management, including SEA follow-up, responsive to changes in lower initiatives and external emergent changes (B/Bs). It is important to note that budget year is a usual response constraint as response measures need to follow a budget cycle (see also later). The same considerations are relevant to the Lancashire and Blackburn with Darwen LTPs, which are weaker in responding to external emergent situations (C/B & C/C respectively). The Lancashire LTP performance management nonetheless strives to react to certain changes in practice. Whilst being rather strong in internal adaptive management, the FMP lacks the mechanisms to react to external factors, e.g., dynamic changes in economic environment (C/C). This is consistent with the results of monitoring types' analysis in that the FMP has very limited follow-up monitoring of type A1: tracking actual socio-economic and other changes in the broader context (Table 7-6) and no evaluation of this type of information (Table 7-7). One factor that also contributes to the slow responsiveness of follow-up to the FMP is long bureaucratic procedures that need to be fulfilled in case of changes and also the unwillingness to break the terms of the agreement concluded with the Saskatchewan Government. No contingency plans were envisioned in the cases. This possibly points to the attitude of the proponents to the strategy as to something dynamic, volatile and long-term that by default cannot be foreseen in detail and would more easily completely fail than fail in some - *a priori* unknown- part that would necessitate contingency plans. The security mechanisms relied on in this relation are risk assessment and management and routine adaptive management.
- The fifth and sixth slightly differing variables, namely the adaptability of SEA follow-up and PPPs in case either of them changes reveal a nearly identical performance of all cases. E.g., the Merseyside, Lancashire and Blackpool LTPs and CASP perform satisfactorily in respect to both the revisions of SEA follow-up if the contexts of the PPPs changes and the revisions of the PPPs if SEA follow-up reveals unexpected impacts (C/Cs). This lower performance if compared to the adaptability of these strategies and follow-up to internal

or external changes (B/Bs) can be explained by the fact that only minor changes and mainly within schemes/actions are possible and formally permitted. Besides, there are financial and technical problems that prevent the proponents from revising the LTPs or follow-up. The CASP's follow-up design does not provide for additional SEAs if the CASP is significantly changed, rather it suggests that any changes may reach the CASP only during the 5-year periodical *assessments of the need for its comprehensive review*. The FMP and Blackburn with Darwen LTP perform better in terms of both adaptability variables (B/C & B/B correspondingly), despite their worse performance in terms of response to changes (C/Cs). This opposite picture in respect to other cases' performances is surprising. In case of the Blackburn with Darwen LTP, it might be explained by a thoughtful consideration given to the changes in the LTP as they emerge and also a commitment/practice to modify the LTP actions if environmental issues are significant. In contrast to other cases, the FMP proponents are obliged to modify the FMP if follow-up or scientific studies reveal negative effects and conduct additional EAs to address changes in the FMP, a rule which is often avoided by the industry due to financial concerns.

➤ Finally, the only variable that reveals the similarly good performance across cases and is also consistent between design and implementation degrees is the adaptability of PPPs and SEA follow-up in terms of the feedback from subsequent actions to the initial strategies within follow-up (B/Bs). This is partly preconditioned by the planning and policy frameworks that encourage and are able to feedforward SEA follow-up results. However, full-scale feedback is constrained by the scheduled reviews of the initial strategies (all cases).

7.4.2.2 Strengths vs. weaknesses

The strengths and weaknesses of the process SEA follow-up dimension across six cases have been identified and fully presented in [Appendix K,a](#)). According to the data, all six cases have only one strength in common, that is the adaptability of strategies in terms of feedback from subsequent decision-making. Differentiation of similar/dissimilar strengths and weaknesses has been attempted in relation to the countries. However, it is hardly possible to infer that there is an obvious country-wise correlation of similar weaknesses/strengths. Rather, some UK and Canadian cases possess the same strengths/weaknesses, while the cases located in the same country do not. For instance, all cases, except the CASP, enjoy well developed and delivered communication/reporting or e.g., follow-up scoping is a strength for all cases, except the Blackpool LTP. Nonetheless, country-wise categorising strengths/weaknesses of SEA follow-up practice is to some extent possible and helpful. To this end, the UK cases share

strengths that facilitate SEA follow-up such as legal follow-up screening requirements, strong design and delivery of communication, explicitly designed and maintained consistency of follow-up targets and objectives with those of the related initiatives, national/regional policies and regulations, strong stakeholder cooperation as well as clearly defined various monitoring elements. For the Merseyside LTP follow-up, strengths include methods, roles and schedules; for the Lancashire LTP they are methods, frequencies and risks, but not schedules and roles; Blackpool takes its own holistic approach to monitoring; while Blackburn with Darwen details such monitoring elements as indicator-wise risks, outcomes, and funding. The Merseyside, Lancashire and Blackburn with Darwen LTPs provided for a rather effective consensus-building process on SEA follow-up methods, which is a weakness for Blackpool. Interior integration is found to be strong in the SEA follow-up to the Merseyside and Blackburn with Darwen LTPs. The latter is exceptional across cases in that its follow-up and LTP performance integration draws on in-house assessment and planning processes. Provisions for and practice of adaptive management are strong in the Merseyside and Blackpool LTPs; whilst Blackburn with Darwen is the strongest among the UK cases in terms of how it has planned to handle/handles deliberate and emergent changes in the LTP/follow-up. As to the Canadian cases, the key strengths of the FMP as compared to other cases are a strong reliance of FMP performance management on follow-up monitoring and evaluation; formal requirements for additional EAs if the FMP undergoes changes when being implemented and provisions to modify the FMP if SEA follow-up or related studies discover unexpected adverse effects on the environment. The CASP is the only case with more weaknesses than strengths. It suffers from e.g., underdeveloped follow-up reporting/communication methods; unclear follow-up goals and rationales, similarly to the Blackburn with Darwen LTP; and weak consensus-building on SEA follow-up methods/delivery, similarly to the Blackpool LTP.

7.4.3 Structural dimension

The analysis level was lowered to enable the identification and discussion of differences vs. similarities and strengths vs. weaknesses of the SEA follow-up structure across cases and to compare the performance of the structural variables in order to better understand the design and implementation grades in this dimension (contrast structural dimension, [Table 7-2](#) and data in [Table 7-9](#)). Further sections present the main findings in this dimension.

Table 7-9 Cross-case performance of the structural SEA follow-up variables (& similarity test)

Structural variables	Merseyside LTP	Lancashire LTP	Black-pool LTP	Blackburn with Darwen LTP	PP FMP, SK	CASP, ON/QU
Statement of strategy ownership &	A	C	C	C	A	A

Structural variables	Merseyside LTP	Lancashire LTP	Black-pool LTP	Blackburn with Darwen LTP	PP FMP, SK	CASP, ON/QU
status of proponents						
Specified timing & position of SEA follow-up in plan/decision/policy-making cycles:	A	A	A	A	A	A
➤ in relation to SEA and its strategy formulation and delivery processes						
➤ in the broader context of horizontal, upper, or lower strategies & their EAs	B	B	B	B	C	B
Acceptance of roles & responsibilities & accountability in SEA follow-up by relevant stakeholders	B/B	C/B	C/B	C/B	B/B	B/B
Transparency for SEA follow-up delivery activities	B/B	B/B	B/B	B/B	B/B	C/B
Commitment/motivation by responsible stakeholders & acknowledgement of threats for non-implementing SEA follow-up	B/B	B/B	C/C	C/B	B/B	C/B
Competence (managerial) & adequate resources for SEA follow-up mentioned in PPP/SEA budgets	B/C	B/C	C/C	B/B	C/C	C/C
Networking (for credibility & mutual trust)	B/B	B/B	B/B	B/B	B/B	B/B
Provisions & possibilities for capacity-building (education, training)	F/C	F/E	F/E	F/C	C/C	C/B

Significant difference (+/-3 grades) Moderate difference (+/- 2 grades) Insignificant (+/-1 grade) and no difference

7.4.3.1 Differences vs. similarities

Compared to the other two dimensions, the performance of the structural variables reveals less variance across cases (compare Table 7-3, Table 7-5 & Table 7-9). The performance of the structural variables across cases has the same features/development stage for only two variables out of nine; insignificantly differs in the case of five variables; moderately differs for one variable and significantly differs also for one variable (colour marking, Table 7-9). The category-wise (dis)similarities are discussed below.

➤ Provisions and possibilities for capacity-building is the area with the largest difference in performance. The FMP and the CASP perform better in terms of both design and implementation of this variable. They envisioned the need for and areas of external input and the related internal learning (Cs for design) and consider the need for capacity-building initiatives on a case-by-case basis (B for implementation, the CASP) as well as institutional brokering and involvement of consultants (C for implementation, the FMP). None of the UK strategies has envisioned training or capacity-building actions to facilitate the SEA follow-up implementation as part of the LTP2s (Fs for design). This is explained by the belief of the LTPs proponents that they possess sufficient capacities for follow-up delivery or can

outsource them if needed. Nonetheless, the practice shows that the Merseyside and Blackburn with Darwen LTPs do initiate capacity-building activities in case the LTP/follow-up actions and officers require these (Cs for implementation). A worse situation with implementation is noted for the Lancashire and Blackpool LTPs (Es), which hardly practice institutional brokering or instigate trainings for follow-up purposes.

➤ The moderately differing variable, ‘statement of strategy ownership and statuses of proponents’, would hint at a country-dependent pattern if not for the performance of the Merseyside LTP (As for the Canadian cases vs. Cs for the UK cases but Merseyside, which is A). The ownership issues are clear-cut for the CASP, FMP, and Merseyside LTP; the former tends to share the ownership over some follow-up actions with the federal agencies and private land owners involved in the CASP delivery; the FMP defines the statuses/roles of the SE, contractors, and the public in relation to some indicators/actions, and Merseyside sets out collective/personal ownership for performance monitoring indicators/follow-up. The LTPs in the Lancashire County do not detail the ownership for the performance indicators or schemes.

➤ Five SEA follow-up variables reveal insignificant difference in performance across cases:

- First, in terms of timing and position of SEA follow-up in the broader context of the related strategies, almost all cases perform quite well (Bs; C for the FMP) (Table 7-9). For all of them, but the FMP, the SEA processes fit into the EA hierarchy, and SEA follow-up occupies a rather clear position in reference to lower and higher strategies. However, the links between follow-up/monitoring of the strategies and parallel follow-up/monitoring of the related upper, lower, or horizontal initiatives are not evident. This can be explained by a just evolving fit of the tiered SEA system across planning levels and sectors as well as by the unique situation of each case according to their proponents.
- Second, the acceptance of roles and accountability reveals similarly quite good performance in Merseyside, the FMP and CASP both in terms of design and implementation (B/Bs). They practice a cooperation- and (industrial/state) value-based distribution of general and specific follow-up responsibilities and encourage corporate and personal accountability for these. A less well elaborated approach to building the acceptance of roles and accountability is noted in the Lancashire, Blackpool and Blackburn with Darwen LTPs (Cs for design). However, in practice, it becomes evident that the overall responsibility and accountability for the LTPs and follow-up lies with the Councils who share it with the key partners; meanwhile the assignees of SEA follow-up tasks accept personal accountability for them as part of the LTPs (Bs).

- Third, all six cases would have performed equally well in terms of creating and maintaining transparent follow-up delivery, if not for the CASP's weakness in designing this variable (B/Bs for all, C/B for the CASP). The UK strategies maintain the transparency of the LTPs and SEA follow-up delivery through partnerships, stakeholder cooperation, forums, APRs, websites (open to comments), newsletters, updates, articles, meetings, etc. The FMP, on a par with some of the listed methods, uses technical solutions (standards, protocols) and expert judgments (audits and public reports) to increase the transparency of follow-up/implementation programs.
- Fourth, the Merseyside and Lancashire LTPs and FMP quite explicitly express corporate/personal stakeholder commitment as well as compliance with it and recognise the consequences of non-implementing follow-up (B/Bs). While the Blackburn with Darwen LTP and CASP also express clear commitment to follow-up, they lack the formal acknowledgement of outcomes of non-implementing follow-up; nonetheless, practically, they recognise these and strive to avoid them as harmful for a proponent's (corporate) image (C/Bs). The worst performing case in terms of this variable is the Blackpool LTP (C/C). This is due to unclearly expressed corporate and weak personal commitments as well as to the limited consideration given to the threats of non-compliance with the planned SEA follow-up enhancement and mitigation measures.
- Fifth, adequate managerial competences and clearly specified budgets for follow-up in the investment program of the Blackburn with Darwen LTP make it the strongest case in terms of the performance of the 'competence and resources' variable (B/Bs). The Merseyside and Lancashire LTPs reveal somewhat sufficient competences and to some extent specified budgets; however, in practice they demonstrate limited budgets and human and technical resources (B/Cs). The CASP, FMP and Blackpool LTP perform equally satisfactorily (C/Cs), which is due to unspecified budgets and limited financial and human resources for follow-up, despite quite sufficient competences, preserved institutional memory and learning at the NCC (the CASP); unspecified budgets for follow-up and actually limited financial and human resources (the FMP); and limited planned & actual follow-up budgets and just-sufficient technical capacities (Blackpool).
- Two variables perform similarly with regards to enabling the SEA follow-up practice:
 - First, for all six cases the timing and position of SEA follow-up is evident in relation to the SEAs, strategy formulation and delivery (A). This is regardless of whether the strategy (and its SEA) is a new planning cycle (the FMP, CASP) or continues the

existing transport planning (the LTPs). Overall, SEA follow-up is performed and reviewed according to the strategies' delivery and review timing.

- Second, all six cases envision and maintain abundant (internal and external) formal networks through e.g., forums, meetings, consultations (B/Bs), tend to utilise the SEA-born platforms within and beyond the proponent organisations, and highlight a volatile nature of informal networks. The overall contribution of formal and informal networks to improving the credibility of the strategies, proponents and follow-up varies from case to case depending on various factors. The practice of 'semi-formal' networks is notable, that is when the proponents organise informal consultations with stakeholders on emerging delivery issues (e.g., in Blackburn with Darwen).

7.4.3.2 *Strengths vs. weaknesses*

Reviewing and categorising the analyses of individual cases allows identifying the strengths and weaknesses of the structural dimension across the SEA follow-up cases ([Appendix K,b](#)). The six cases share only one common element, i.e. the weakness due to unclear links between a particular SEA follow-up and follow-up to the related SEAs/strategies. All cases also suffer from the shortage of financial, human or technical resources. The UK cases further have one weakness in common, namely the lack of provisions for capacity-building for follow-up.

The Canadian cases share such strengths as i) clear principal and shared ownership over the strategy and also over the follow-up indicators/actions in case of the FMP; which is also a strength for the Merseyside LTP, and ii) explicit commitment to follow-up and attempts to promote joint commitments for some follow-up actions in case of the CASP implementers. One weakness similar for the CASP and FMP is unspecified budgets for follow-up.

Amongst the features shared by some UK and Canadian cases are explicit corporate and personal accountability for follow-up tasks (the FMP & Merseyside LTP), the above-mentioned strong ownership feature (the FMP, Merseyside, & CASP) and formally undefined threats of non-delivering follow-up (the CASP, Blackpool & Blackburn with Darwen LTPs). Overall, similarly to the conclusions of strengths/weaknesses' analysis of other SEA follow-up dimensions, no country-wise correlation is observed in this dimension ([Appendix K,b](#)).

7.5 Problems of SEA follow-up practice

This section detects and analyses the mentioned and observed problems and obstacles to SEA follow-up preparation and implementation across cases¹²⁷. The problems are clustered according to the context, process and structural dimensions and categorised into groups whenever applicable¹²⁸ (see [Appendix L](#)).

Some of the major problems in SEA follow-up context include ([Appendix L,a](#)):

- Formal provisions: A problem in some cases, namely the Canadian ones, was the lack of generic legislated requirements for SEA and follow-up at the federal and Saskatchewan provincial levels (with the exception of forestry sector). Likewise, generic guidance at the federal (and NCC) level is deficient in terms of follow-up, if not missing; meanwhile, at the provincial level case-specific SEA guidelines including follow-up provisions are issued, but again only in the forestry sector. Weak enforcement of SEA and follow-up is identified as a restricting factor both in the Canadian and UK cases. In Saskatchewan, the lack of SEA follow-up regulations, limited capacities of the regulators and insufficient self-enforcement efforts of the implementers are noted as antecedents of this problem. Presently, improvements in the national SEA-related legislation and guidance, better cooperation between the central, regional, and local competent planning authorities and involvement of special SEA consultation bodies contribute to better enforcement of SEA requirements at least during the planning stage of transport initiatives in North West England. At the same time, high changeability of SEA, planning and reporting guidance and frequent administrative reforms of planning bodies at various levels were indicated a problem by the local authorities in the UK;
- Exterior integration: Although the integration of SEA follow-up with existing monitoring systems has been on the strategy planning and management agenda for a number of years, it is still a problem both in the Canadian and UK cases. Its roots are seen in the uncoordinated central, regional, and local monitoring actions; locating national monitoring systems in places not always relevant to the purpose of local follow-up; limited time and human resources of local authorities to continuously search, sort out and integrate the data from various agencies (the UK); different methods and formats used by existing system and by case-specific

¹²⁷ The position of analysis towards the identification and examination of problems is not actor-specific; rather it includes the visions and opinions of those involved in follow-up as well as those of the author.

¹²⁸ Less than half of the problems across cases and dimensions have been explicitly mentioned by the interviewees; others have been identified through the analysis.

monitoring schemes (the FMP). These problems share the same roots with the effective data and information management challenges observed in the SEA practice, such as the lack of harmonisation between datasets at different geographical scales, duplication of information collection, heavy procedures for data acquisition (e.g., Vanderhaegen & Muro 2005).

The key problems in the SEA follow-up process are as follows ([Appendix L,b](#)):

➤ Follow-up goals/rationales: Some of the examined SEA follow-up cases contained no follow-up goals or only vaguely formulated them, which put at risk their understanding by the stakeholders. In other cases, follow-up goals and strategy performance monitoring goals were formulated separately. This, exacerbated by the issue of sometimes competing goals and priorities of follow-up and strategy, led to the partial or complete exclusion of follow-up goals from the final strategy performance management frameworks (see the integration problem below). In this light, it might be inferred that the strategy performance monitoring prioritises the implementation of strategies over SEA follow-up and transforms the goals of the latter, if not neglecting them, partially losing the environmental orientation (for details see Point 7.4.1 & Appendix I, for further discussion see Chapter 8).

➤ Core SEA follow-up activities: The problematic issues for the cases appeared to be mostly those related to the design of follow-up activities, namely, monitoring schedules and responsibilities, monitoring and evaluation methods and management mandates. Coherence between various tracks of either monitoring and evaluation or evaluation and management is found to be deficient in some cases that may constrain meaningful and cost-efficient SEA follow-up (see consistency tests in [Table 7-7](#) & [Table 7-8](#)). Different data storage and processing formats used by partners-implementers or regulators and implementers are more likely to be a problem in lower-level (programmic) SEA follow-up, such as the FMP. Concerns are expressed about the accuracy of data collected by various actions/schemes of strategies and limited ability to attribute the actual effects to certain actions within the strategy delivery and follow-up schemes. The latter is consistent with the conclusion of Persson & Nilsson (2007,492) that establishing causality is a particular problem in SEA follow-up.

➤ Interior integration: While most strategies and their SEA reports promote the integration of SEA monitoring frameworks with those of strategies, in practice they hardly manage to do this. An obstacle to the integrated SEA follow-up and strategy implementation appeared to be limited/unclear inclusion of SEA recommendations, mitigation and enhancement measures and monitoring proposal into the corresponding elements of strategies. Whereas the SEA consultants make recommendations, the decision what to include usually rests with the

planning team. If there are competing priorities or the SEA fails to communicate the importance of its proposals, as happened in some of the analysed cases, the inclusion becomes partial with some of its components being omitted. In this context, the loss of purely environmental components during the ‘merge’ of the proposed SEA follow-up and strategy performance monitoring scheme as compared to the socio-economic and strategy-specific components is a serious problem. In the case of an in-house integrated assessment, the inclusion also seems to be blurred as SEA follow-up is dissolved in the strategy performance.

➤ Cooperation: If a consensus-building exercise, intending to clarify SEA follow-up is omitted, many SEA follow-up process-/methods-related problems become unavoidable. Besides, its absence to some extent can cause structural problems and limit social learning. Its success depends on the arrangement for involving relevant stakeholders and overall cooperation. The involvement of stakeholders is noted as a problem when special groups/isolated local communities need to be engaged (e.g., Aboriginal people) or when it runs into structural resistance or inertia in terms of the lacking interest (see structural problems below).

➤ Adaptability/responsiveness of SEA follow-up and strategy appear to be challenging due to a number of stances. Practice demonstrates the weakness or absence of mechanisms needed to respond to external changes or emergent situations in a timely manner. Adaptive response needs to follow certain inter-organisation or centrally-regulated rules, which constrain its speed. These rules include the necessity to stick to budget year reporting and pre-defined times of formal reviews (from 1 to 5 and 10 years) and long political processes and consultations that are to be gone through if changes to the approved strategies or follow-up are needed. Additionally, any revisions and responses to emergent changes require supplemental finances or internal reallocation of resources that are often constrained by (technical) possibilities of follow-up/strategy implementers.

The structural obstacles to a successful SEA follow-up are ([Appendix L,c](#)):

➤ Ownership, accountability & commitment: Even given a clear ownership for an overall strategy, un(der)specified ownership for various follow-up and strategy performance management actions and indicators is a direct way to a daunting problem of diffused responsibilities at strategic levels (see Chapter 2). Not articulating corporate commitments for follow-up in order to avoid rendering a (corporate) accountability for it is another pothole on the way to successful follow-up and strategy delivery. In some cases, the design and implementation of SEA follow-up faces the issues of weak personal accountability for, and

low personal commitment/motivation to, follow-up. The causes of these problems can stem from the design and implementation problems of the core SEA follow-up activities (see above) as well as from the further discussed group of structural problems.

- Understanding, interest & support: Failure to properly articulate the basic consequences of non-implementing follow-up means losing an additional factor for (self)-enforcement of follow-up components. Non-understanding or non-recognising the potential threats alongside the above-mentioned commitment and accountability issues may result from the lack of/limited understanding of the necessity and benefits of SEA follow-up. The latter is a big problem in itself that can negatively influence the quality and efficiency of follow-up despite formal requirements for it. The lack of public interest towards SEA and SEA follow-up and low willingness to participate in the assessment and planning processes is a challenge faced by many strategy proponents (see linkages, Chapter 8). It can discourage them from giving a proper account of the strategy and follow-up delivery progress. The lack of public interest, low (public) concerns and awareness about the environment, including the environmental protection tools such as SEA follow-up, reduce its significance on the local political agenda, especially if compared to socio-economic priorities. As a result, there is often no/limited local political support for long-lasting and sometimes resource-demanding SEA follow-up activities.
- Follow-up position: Fitting into and taking a certain position within the existing and evolving structure of interrelated strategies and possibly a tiered EA system appears to be challenging. Improperly positioned SEA follow-up leads to its disjointedness with the related strategies and isolation from the relevant information. The related issue, also as part of a 'splash effect' in follow-up (Chapter 2), is the lack of clear links from SEAs to EIAs.
- Resources: The lack or limited financial, human, and technical resources is a frequent problem, as some other EIA/SEA follow-up research show, e.g., SEA monitoring suffers from often insufficient or inappropriate personnel and finances (see Hanusch & Glasson 2008). The issues of the lack of understanding, interest and support for SEA follow-up lead to allocating fewer resources to follow-up activities or rejecting them at the design stage of follow-up and strategy performance actions. Occasionally, the costs for follow-up, especially for monitoring, are obtained by diversion of finances from the available funds within the strategy.
- Capacity-building for follow-up activities is a problem, especially when the implementers commit to a particular SEA follow-up proposal suggested by external experts in the absence

of appropriate skills¹²⁹. The lack of the needed skills somewhat impels the proponents to reject some follow-up activities. Capacity-building is constrained by no/limited funds.

7.6 Benefits of SEA follow-up

This section identifies and analyses the benefits of SEA follow-up as perceived by the interviewees, and observed by the author across cases¹³⁰ (Table 7-10). The perceived benefits are grouped into several emerging themes, leaving out the secondary or tertiary links (e.g., learning from the 'learning & information' theme may stem from cooperation on theme-specific issues from 'networking and cooperation' benefits (Table 7-10)). Most benefits are named for the Merseyside LTP, which is also the best performing case of SEA follow-up. The reasons for perceiving more benefits may be that the Merseyside partnership started assessing its transport strategies and performing some follow-up earlier than other cases, there is an old tradition of involving research and educational institutions and experienced staff that has been engaged with the Merseyside transport strategies since their early days¹³¹.

The benefits of SEA follow-up as per grouping are as follows:

➤ The benefits related to management and goal-achievement of strategies and follow-up are most numerous compared to other groups of benefits. They include the implementers' ability to track the actual impacts of their strategies and understand the differences between the actual outcomes and their forecasts; arming the stakeholders with a mechanism to assess the actual impacts; a systematic and organised accumulation of the monitoring and evaluation data for its further use when the SEAs and strategies need to be reviewed/updated according to the planning cycles; helping assure that the targets/objectives of strategies are met in line with sustainability policies; the possibility to maintain flexible decision-making and practise adaptive management when such a need arises; and help keep strategies connected to the related strategies and environmental policies, both of which change over time.

¹²⁹ At times, the follow-up implementers do not confess or feel that they lack certain skills since they perceive SEA follow-up as part of the strategy. Meanwhile, planning and delivering strategies is their usual job.

¹³⁰ Similarly to the problems' analysis above, the position of analysis towards the identification of benefits is not party-specific. It should be mentioned that identifying the expected follow-up benefits based on the document analysis appeared to be hard as both the strategies and SEA follow-up proposals barely mentioned them.

¹³¹ In some cases, the interviewees have named certain benefits associating them not with SEA follow-up but with the delivery of a strategy as such. Such benefits have not been included in the table.

Table 7-10 Summary of benefits of SEA follow-up

Perceived benefits/cases	Mersey-side LTP	Lanca-shire CC LTP	Black-pool LTP	Blackburn with Darwen LTP	PP FMP, SK	CASP, ON/QU
<u>Management and goal-achievement</u>						
Tracking the actual impacts	**			*		
Understanding the differences between the actual outcomes & their forecasts	*				X*	
Mechanism to assess the actual impacts	*					
Accumulating data for further use to review/update SEA & a strategy as per planning cycles				*		*
Assuring that strategies' targets/objectives are met in a sustainable way	*					
Maintaining decision-making flexibility & adaptive management	*					*
Keeping strategy realisation connected to the related strategies & environmental policies	X*					
<u>Environmental protection</u>						
Integrating the environment into strategy implementation	* X				*	
Integration with other forms of environmental information	*					
Checking for improvements in the environmental conditions						
<u>Networking and cooperation</u>						
Cooperation/networking on action-specific impacts				*		
Cooperation/networking on theme-specific issues & implementation problems	*		X			
Maintaining cooperation platforms created for SEA/planning	X*	X		*		
Keeping up with values/objectives of stakeholders					X	X
<u>Learning and information</u>						
Continuous improvement of strategy practices					*	
Access to follow-up information	*	*				
Access to more information in general	*	*				
Making the process more transparent						*
Personal learning		*			*	
Exchange of information and group learning		*			*	
<u>Corporate benefits</u>						
Credibility of a strategy			X			
Improving corporate image	*					*
Demonstrating relevance and overall responsibility						*

'X'-observed/identified by the author

*-mentioned by an interviewee/consultee;

** -mentioned by at least two interviewees/consultees

NB: the formulation of benefits is kept as close to the original statements of the interviewees as possible.

- Three benefits are perceived as related to environmental protection. They mostly constitute the outputs of SEA follow-up in terms of integrating the environment into the implementation of strategies, the integration/utilisation of other forms of environmental information in follow-up and strategy delivery, and checking for improvements in the environmental conditions (as a results of conformance follow-up with the mitigation/enhancement measures);
- Networking and cooperation and learning and information are the categories with migrating benefits, where most benefits of the latter category can arise from those of the

former. The former group encompasses such process-type benefits as cooperation/networking among stakeholders on various action-specific impacts and on theme-specific issues and problems stemming from the implementation process; maintaining cooperation platforms created for SEA/planning; and as an outcome of these, continuous updating and balancing the values/objectives of stakeholders. The learning and information category includes more outcome-type benefits, namely the ability of the implementers to continuously improve the strategy practices (or process learning); access to the generated follow-up information and to more information related to follow-up, strategy delivery and other environmental information in general; greater transparency of the delivery process, problems and solution actions; better focused and systematic exchange of information and personal and group learning among those involved in the delivery process.

➤ Several ‘corporate benefits’ are stated as resulting from SEA follow-up. These relate to the changes in the characteristics of proponent-organisations and their initiatives, i.e. the increased credibility of a strategy; the improved corporate image of implementers; and the possibility to continuously demonstrate to the stakeholders the relevance of the implementers’ actions and their overall responsibility for strategy-making and strategy delivery process.

A question of interest to the analysis is whether these benefits bear some relation to the stated goals and objectives of SEA follow-up in the individual cases. In this connection, the cases with the specified goals/rationales/objectives of SEA follow-up have been reviewed (Table 7-5). Interestingly, virtually no associations between the perceived benefits and the stated goals/objectives of SEA follow-up have been identified¹³². This may well mean that most of the perceived benefits are unintentional being gained in the course of a strategy and follow-up delivery and that many benefits might result from the actions envisioned to achieve one goal.

Overall, the identified and perceived benefits of SEA follow-up reflect its ultimate objectives, which are articulated in the professional literature (see Chapter 2).

7.7 *Summary*

Whilst all six cases demonstrate a rather good performance of the SEA follow-up practice (Bs), the case-ordered analysis reveals that according to the overall follow-up performance the Merseyside transport strategy surpasses other cases and is followed by the Blackburn with

¹³² There are only few matches in the Merseyside and Blackburn with Darwen LTPs.

Darwen LTP, FMP, Lancashire and Blackpool LTPs, and CASP. The reason for this as well as the overall performance of the cases is explained through a number of lower-level analyses.

The dimensions-wise comparisons show that the performance of the SEA follow-up process is what mostly predetermines the overall cases' performance. It follows the same order as the overall SEA follow-up performances across cases; whereas these of the context and structural dimensions do not. In fact, the context of four UK cases revealed a similarly good state of development, whilst that of two Canadian cases was weaker. In contrast, the FMP and CASP surpassed all UK cases in terms of the performance of the SEA follow-up structure largely due to a traditionally greater attention paid to the structural components.

Further, the analysis of associations between the performance of design and implementation of the SEA follow-up process indicates that the Merseyside and Blackburn with Darwen LTPs are the only cases with a better elaborated follow-up design and weaker implemented follow-up. Other cases show the opposite. Moreover, according to the same analysis for the structural dimension, SEA follow-up of all six cases was designed less carefully and in less detail than it was/is actually delivered. Generally, the design component of the follow-up process is featured with a weaker performance across cases than that of the structure, and the design component per se performs weaker than the implementation one. Thus, it is mostly the extent to which SEA follow-up is implemented that preconditioned a better performance of the process and structural dimensions of the cases resulting in their better overall performance.

With respect to differences and similarities within the context SEA follow-up dimension, four UK LTPs share similar features/development stage in terms of all context variables, except for exterior integration. Differently, the comparison of the two Canadian strategies reveals distinct development stage in around half of the context conditions. In the process dimension, the analysis reveals only one variable out of 14 with the same performance across cases. The performance of the process SEA follow-up variables differs insignificantly; moderately, and significantly for six, six and one variables respectively. Additional consistency tests to check the coherence between the identified monitoring, evaluation and management both in practice and against the theoretical analysis' prepositions shows that some strategies tend to elaborate/practise those evaluation forms, monitoring for which is not considered and vice versa, and that most strategies reveal consistency between evaluation and management SEA follow-up components. Some inconsistencies were re-investigated and as a result pointed out to a partial relevance of theoretically delineated relationships between the elements to the practice, especially in terms of management. Among the structural variables, two variables

perform similarly across cases; five are insignificantly different; one variable differs moderately and another one differs significantly.

The cases demonstrated a number of strengths and weaknesses. Regarding the context, the similar strengths across cases are explicit compliance with sustainability principles and ability of planning systems to incorporate SEA follow-up results in future planning, and common weaknesses are hardly satisfactory enforcement and insufficient to absent exterior integration. In the process dimension, strengths and weaknesses are extremely diverse: out of around 30 identified themes, the cases share one strength only - adaptability of strategies in terms of feedback from subsequent decision-making. The strengths and weaknesses of the structural dimension are also diverse with the obviously prevailing number of weaknesses across cases. Out of around 15 distinguished themes, the only common facet is weak/vague links between a particular SEA follow-up and follow-up to the related SEAs/strategies (the cases also point to the lack of various resources). No country-wise correlation of similar weaknesses/strengths is observed.

Problems to SEA follow-up were identified across cases, clustered as per the framework dimensions, and discussed in the following groups: formal provisions; exterior integration; follow-up goals/rationales; SEA follow-up activities; interior integration; cooperation; ownership, accountability & commitment; adaptability of SEA follow-up & strategy; understanding, interest & support; follow-up position; resources; and capacity-building.

Likewise, the perceived benefits to SEA follow-up were identified, grouped and discussed according to the next categories: management and goal-achievement, environmental protection, networking and cooperation, learning and information, and corporate benefits.

It should be mentioned that the proposed SEA follow-up framework did allow for capturing and accommodating the elements that are beyond its boundaries but appear to be important for SEA follow-up practice. Thereby, this research accomplishes one of its aspirations, namely to propose a flexible evaluative and explanatory SEA follow-up that could be applied to various contexts and learn (see Chapters 3 & 4).

Finally, the identified contrasting and similar patterns among the SEA follow-up variables; dimension-wise analysis of strengths and weaknesses; classification and discussion of problems and benefits of follow-up, and examination of linkages in-between the elements of the follow-up framework including other recurrent factors provide an essential input for the next Chapter 8, which will synthesise the research findings and make recommendations.

CHAPTER 8. SYNTHESIS AND RECOMMENDATIONS

This Chapter draws together the key findings of the e-survey and cross-case analyses and examines and interprets them in relation to the theoretical findings, current understanding of SEA follow-up, SEA debate, and a wider theoretical context¹³³. It starts by scoping out and discussing recurrent and critical linkages between the elements of the SEA follow-up framework including other factors that have emerged as essential for follow-up practice. It then proceeds to discussing the key messages drawn from the research, which provide avenues for advancing the theory and practice of SEA follow-up. It concludes by proposing recommendations on the conditions and ways to improve the application of SEA follow-up.

8.1 Linkages among the elements of SEA follow-up

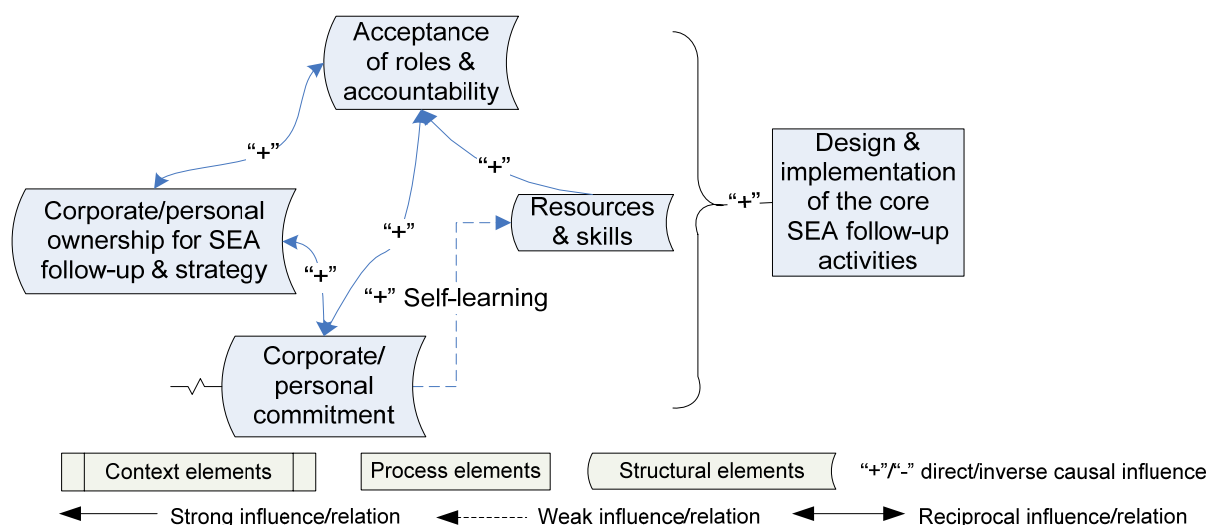
Drawing on the case analyses, this section explores the important, explanatory links among the SEA follow-up elements either in terms of their influence on each other or temporal or causal relationships. Several causal sub-flowcharts below involve not only the elements of the theory-based SEA follow-up framework, but also other emerging factors and intervening themes and present some interesting, non-trivial relationships (see Appendix M for the meta-flowchart with all SEA follow-up framework components).

8.1.1 Important explanatory links between SEA follow-up framework variables

Figure 8:1 depicts the relations between the structural variables that were found to exert a greater influence on the quality of SEA follow-up design and implementation than other variables. A clearly articulated corporate ownership for a strategy and follow-up including corporate/personal ownership for individual strategies and SEA follow-up indicators or actions leads to a higher acceptance of responsibilities in follow-up and greater accountability for its actions. Two variables have a direct reciprocal relationship. They are both enhanced by, and contribute to, a stronger corporate and personal commitment to accomplish SEA follow-up, usually as part of strategy performance management. The greater the competences and skills of those involved in follow-up are, the greater is their willingness to accept the assigned or agreed roles in designing or implementing follow-up. Additionally, competence can be

¹³³ This Chapter attains Tasks 3c) validate the findings of the cases analyses by synthesising them with the survey results and theoretical findings and 3d) develop recommendations for improving the application of SEA follow-up based on the previous analysis and discussion (Chapter 1).

improved through formal and informal learning processes, especially if there is a strong commitment of staff to SEA follow-up. This interplay altogether has a direct influence on how well SEA follow-up might be prepared and delivered.



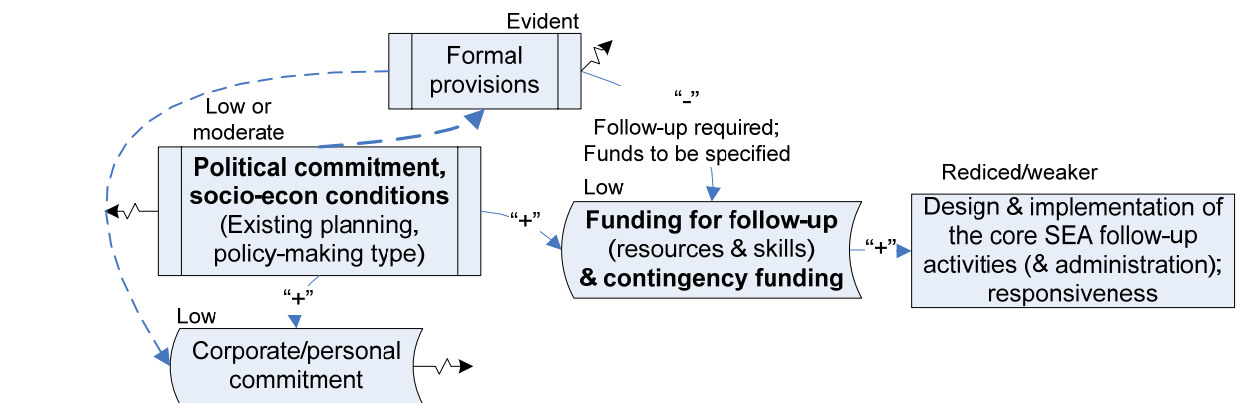
NB: direct influence means that the linked elements change in one direction as opposed to an inverse change.
Figure 8:1 Links between structural variables with most influence on the SEA follow-up process

One of the above structural SEA follow-up elements, namely local institutional commitment has demonstrated different, interesting associations with certain SEA follow-up elements that vary depending on its 'state' and correspondingly influence follow-up. These links become particularly evident when contrasting the stories of commitment across cases in relation to resources for follow-up (especially, when changes occur to a strategy or follow-up), goals of SEA follow-up, and design and implementation of the core follow-up activities. Figure 8:2 portrays these relations for two identified situations: first, when there is a predominantly low commitment to follow-up because of a passive attitude of staff and, second, when there is a higher commitment to follow-up owing to higher skills or enthusiasm of staff.

In the first situation a), whereas political commitment to environmental protection, sustainability and SEA is moderate to high, it hardly extends to include commitment to follow-up, especially beyond basic bio-physical monitoring. Besides, quite weighty socio-economic considerations impel the implementers to reduce 'unnecessary' spending in their favour. Nonetheless, formal provisions often reflect once articulated commitments and clearly require SEA and monitoring, at times for certain sectors only. Given the diverse central priorities, rarely defined standards for follow-up and rather weak enforcement, when it actually comes to follow-up, the added values that can be gained from it seem to be not that significant. This results in insufficient funds allocated to follow-up by central or local authorities, leading to limited technical capacities and a low-quality or reduced, if not

rejected, SEA follow-up process (Figure 8:2a). The state of the local corporate/personal commitment is rather passive/low. That is, there is a commitment to envision some follow-up, but not more than formal provisions require. Envisioning though does not mean implementing as long as enforcement is not adequate. The envisioned follow-up or its elements can be implemented just sufficiently or can be integrated in the strategy in the way that they become ‘dissolved’ in it. In this setting, follow-up becomes deficient and vulnerable to external changes and emergencies. As a result, the strategy also becomes vulnerable, which is rarely realised by follow-up implementers. For instance, they are both late in identifying, evaluating and reacting to non-deliberate changes.

a) Passive position “we need to cope somehow”



b) Active position “we try to manage but we can argue a follow-up case!”

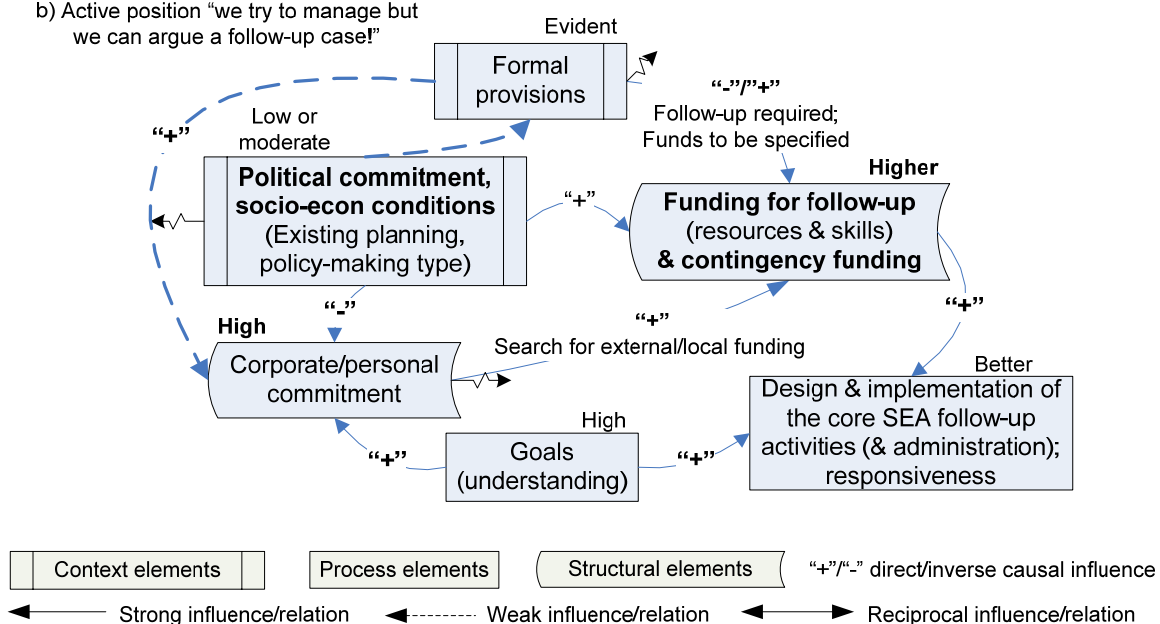


Figure 8:2 Links between commitment, (emergent) resources and SEA follow-up

However, the situation may develop differently if the need for follow-up is well argued bottom-up (situation b, Figure 8:2). According to the evidence, a more positive result requires a stronger corporate and personal commitment to SEA follow-up and a clear understanding of

its needs/goals, given the same state of the context factors such as political commitment, socio-economic conditions and formal provisions. In this setting, the actions of SEA follow-up are carefully considered for feasibility and meaningful integration with the strategy or with other initiatives of the same authority, implementers, and their partners. This exercise does not end with ‘coping’ and getting reduced, if not irrelevant, follow-up; rather it instigates a search for opportunities to deliver or improve follow-up. In some cases, this involves looking for additional, external, (inter)national or local sources for follow-up, striving for the optimisation of a strategy delivery or going back to the authorities to argue the importance of the follow-up case. As the cases show, in the best case scenario (based on the Merseyside and Blackburn with Darwen LTPs), this approach allows getting higher funding or contingency resources in case of necessity. At a minimum, it results in better organised and structured resource management for follow-up, as in the CASP or Lancashire LTP.

Remarkably, the difference between the situations highlights the important role of a person or community for follow-up (see Point 8.2.3.5 below). As the practice shows, when SEA follow-up is elaborated *and* implemented it is not only because that is formally required; in fact, given the same formal requirements, SEA follow-up in four local UK authorities performed differently. Rather it is a personal, group or community (partnership) understanding, aspirations, skills and enthusiasm that move follow-up further¹³⁴. These may be confronted by the structural as well as contextual SEA follow-up elements that happen to be organically resistant to changes (see Chapter 4); however, in the long run a continuously supported bottom-up practice of follow-up may influence the structural and even context elements leading to a gradual routinisation of SEA follow-up.

8.1.2 Associations involving other influential factors

Three sub-networks are discussed in this section. First, an intriguing bunch of links emerged around the management activity of SEA follow-up. It involved the ‘integration of SEA and planning’ component, which was not discussed in the SEA/SEA follow-up literature as vital for follow-up and thus did not become a part of the proposed framework. While the SEA theory does not often pay attention to management as much as it does to monitoring or

¹³⁴ The role of a person or community who share common values becomes more significant in SEA follow-up than in EIA follow-up. While EIA follow-up is more about conformance with strictly related bio-physical standards documented in separate EMPs, SEA follow-up is less about improving scientific knowledge, but more about delivering the desired goals. Thus, SEA follow-up requires a different thinking - flexible and organised. It is often about a knowledgeable and enthusiastic person standing behind the successful SEA follow-up process.

evaluation, in the SEA follow-up practice it seems to be an overarching activity. According to many interviewees, monitoring and evaluation are not done for their own sake, but rather to manage and control the implementation of a strategy and follow-up (see Appendix I, Chapter 6). [Figure 8:3](#) illustrates the complex approach to SEA follow-up management linking it to the context and highlighting the ‘filtering’ nature of the integration process of a strategy and follow-up. The antecedent context factors such as existing planning/policy-making practice, including SEA policies, and formal provisions dictate which follow-up elements and how are to be envisioned. As the cross-case comparison shows, this mostly refers to monitoring and, at times and quite implicitly, to evaluation or management (Chapter 7). Formal provisions may also guide the integration of follow-up with a strategy to be implemented. This interior integration is also affected by the prior integration of SEA with a planning process, e.g., if and how mitigation and enhancement measures have been transferred to a strategy ([Figure 8:3](#)).

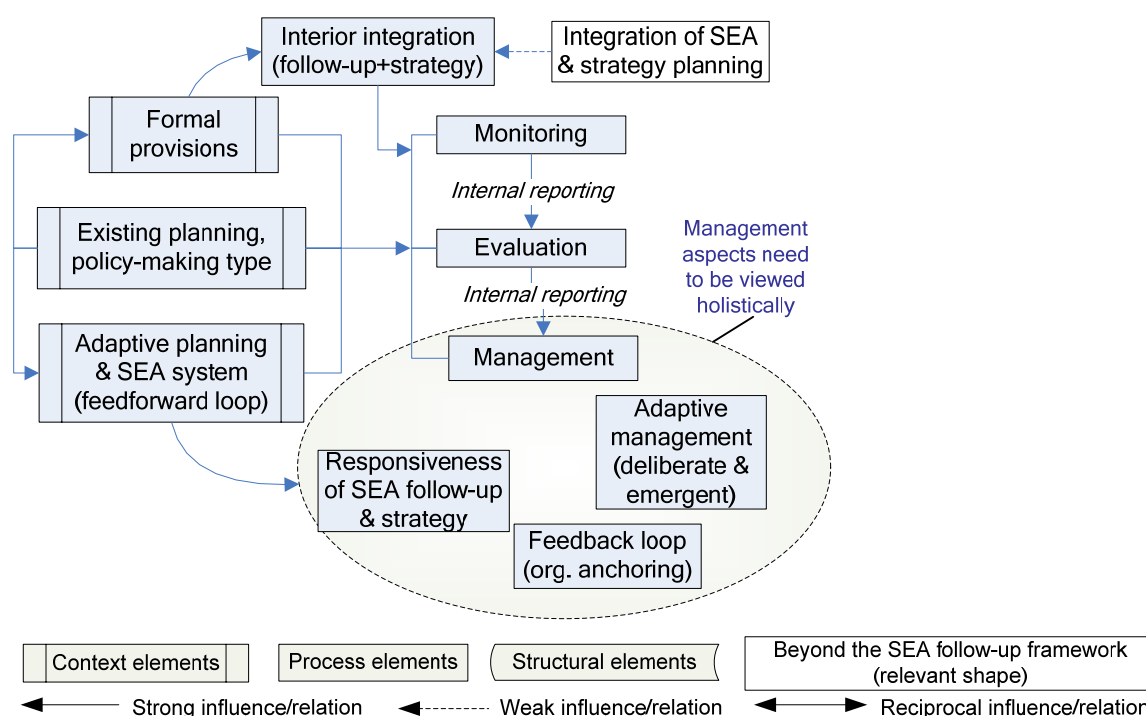


Figure 8:3 Linking the context to the complex approach to SEA follow-up management

The integration of SEA follow-up with strategy monitoring and performance management is the locus where follow-up management comes to the forefront. It is follow-up management that within the strategy management reviews monitoring and evaluation data from a specific and multi-faceted position; for instance, it attempts to decide which strategy or follow-up elements should be revised to assure compliance with the suggested enhancement/mitigation measures, to ensure that adaptive management of a strategy does not incline towards environmentally unacceptable actions, and to provide a meaningful feedback to SEA follow-

up monitoring and evaluation schemes¹³⁵. As all case studies show, several variables of the SEA follow-up process related to various forms of management practically perform as a complex. Additionally, the contextual preconditions for adaptive planning and SEA system may shape the way this management complex can be approached, timed, and shaped for follow-up and strategy (Figure 8:3). *In this case, management becomes more dependent on the context variables* (see the contrast between the Canadian and UK cases, Chapter 6) than e.g., evaluation, which can be conducted following monitoring actions or as decided internally. Again, the effectiveness of follow-up monitoring may lie within the boundaries of internally ‘admissible’ monitoring levels and depend on the forms of commitment (passive vs. active).

Another recurring subset of links evolved around the environmental component of SEA follow-up. It covers elements marginally considered in/beyond the follow-up framework such as public interest in SEA & environmental awareness, integration of SEA and planning, *local* political commitment, and the environmental component of SEA follow-up itself (Figure 8:4).

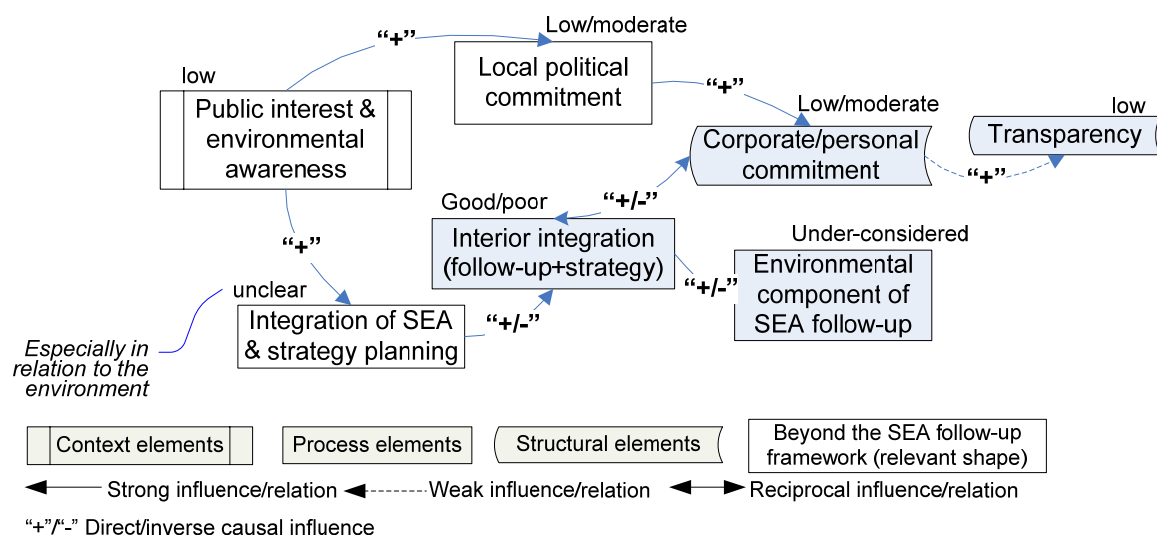


Figure 8:4 Linking public interest/environmental awareness with the environmental component of SEA follow-up

The driver in this sub-flowchart is locally low environmental awareness about, and public interest in the environmental consequences of strategies that are (to be) implemented. In the virtual absence of public concerns over the natural environment, especially compared to such issues as safety or road conditions, local politicians are not motivated to promote something which is not seen as a public problem (e.g., in Blackpool). Similarly, planning authorities or

¹³⁵ It is notable that while monitoring and evaluation (often internally termed as ‘review’) can be outsourced, strategy and follow-up decision-making is the process kept inside the implementing structure(s).

strategy implementers are hardly motivated to properly consider the environmental recommendation of SEAs in the strategies (see direct casual influence links, Figure 8:4). This results in the under-consideration of the environmental component of SEA follow-up and also means that the design of interior integration is poor. Meanwhile, if the actual interior integration during the SEA follow-up and strategy delivery can be both ‘good’ or ‘poor’, especially if viewed *in isolation* from the design of integration. As the strategy is implemented, low public interest towards the environmental follow-up lessens the motivation of the implementers to retain transparency of follow-up (e.g., the FMP). It also prevents/disables the development of public follow-up as a form of enforcement and/or the kind of a self-standing follow-up that proved to be successful for EIA follow-up (Chapter 2; also e.g., Hunsberger *et al.* 2005; Ross 2004). Overall, this leads to a deficient follow-up, whose capacity to achieve one of its substantial aims, i.e. to protect the environment, becomes questionable.

Finally, the attitude to SEA within the implementing organisation/authority seemed to be one of the factors influencing organisational commitment to follow-up (Figure 8:5). To some extent, this links to the above discussed active and passive corporate or personal commitment (Figure 8:2). Negative or indifferent organisational/personal attitudes to SEA often lead to negative and indifferent attitudes to its follow-up, whereas a positive attitude to SEA may lead to the similar perception of SEA follow-up¹³⁶. No empirical evidence is found across cases that attitude to follow-up can be positive if there is resistance to/no acceptance of SEA.

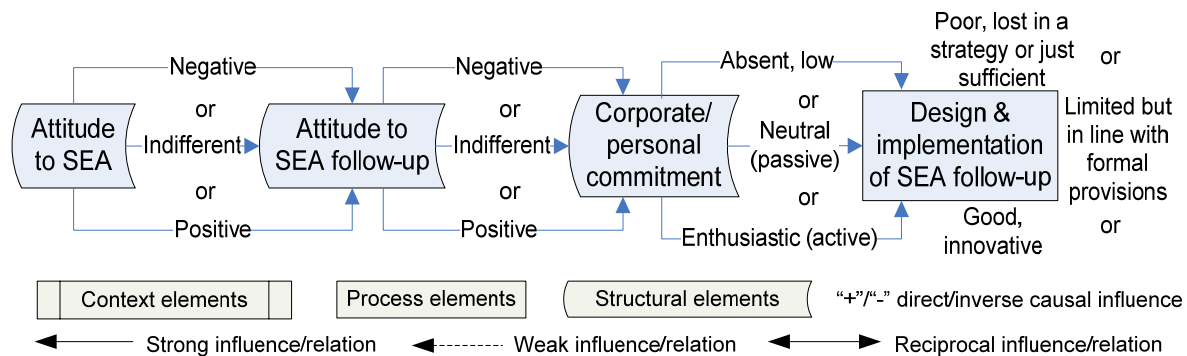


Figure 8:5 Influence of attitude to SEA on SEA follow-up

In case of a negative attitude to SEA follow-up, corporate/personal commitment to design and implement it can be virtually absent or low. This essentially leads to a poor or just-sufficient consideration of SEA follow-up to avoid cutbacks of funding/penalties. Indifferent attitude to

¹³⁶ There could be a gap if the understanding of SEA goals/benefits is present while the goals/benefits of **follow-up** are not that clear. It is also notable for the case of the UK that most of the indifferent, negative attitude to follow-up may be inherited from the pre-SEA Directive and pre-SEA statutory times when some strategies did include some elements of environmental follow-up e.g., air pollution monitoring without SEAs per se.

SEA follow-up is likely to result in neutral commitment to accomplish follow-up (e.g., in Blackpool); whereas a positive attitude to SEA follow-up is likely to result in enthusiastic follow-up (e.g., in Merseyside). The former is close to what is observed relative to the above passive commitment and brings about limited but formally justified follow-up with restricted adaptability. The latter is reminiscent of the active form of commitment that tends to better elaborate and deliver follow-up and stimulates the use/development of innovative approaches for it. This network clearly explains why e.g., the UK case studies, while having very similar follow-up contexts, ended up with quite different overall SEA follow-up performance.

8.2 Synthesising and interpreting empirical and theoretical findings in the context of SEA debate and other theories

The following sections discuss and interpret issues arising from contrasting the empirical findings with the assumptions, expectations, and theoretically derived principles of SEA follow-up. Each section contains message(s) important for advancing the current theoretical and practical SEA follow-up understanding and provides a background for recommendations (see further) as well as for future research (Chapter 9). The messages and lessons are organised into three categories: ‘process-’ and ‘structure-specific’ messages, derived for the process and structure of SEA follow-up as per the framework, and ‘cross-cutting’ messages, dealing with issues across two or all SEA follow-up framework dimensions¹³⁷.

8.2.1 Process-specific lessons and messages

This section comprises messages and lessons drawn for advancing the SEA follow-up process and which, consequently, are under the control of a strategy and its implementers. They are presented in the order SEA follow-up is phased in simplified heuristic terms.

8.2.1.1 Reduced relevance of screening

While a number of screening options were theoretically and empirically identified and explored, the research suggests that screening becomes rather meaningless as a separate, self-standing process in SEA follow-up. In contrast to the screening process for SEA, comprising two vital steps, i.e. determining whether a strategy requires SEA and, if so, the level of SEA (e.g., Sadler 2000; Therivel 2004), there is practically no similarly vital and specific decision-making step for SEA follow-up. Once screening for SEA has occurred as per legal provisions,

¹³⁷ No significant messages have emerged solely in relation to the context dimension of SEA follow-up.

analysis of sensitivity, uncertainty, significance of possible impacts, etc., follow-up to SEA becomes necessary due to the same reasons and to ‘follow-up’ rationales (Chapters 1 & 2)¹³⁸.

According to the research, follow-up was envisioned even for strategies with potentially insignificant impacts (e.g., the CASP, its 62-year sub-strategy ‘Public Programming’), which however concluded that it was needed as a broader follow-up similar to Track 1 or monitoring types C & A1 (Chapter 2)¹³⁹. For the most researched cases, the ‘decision’ about the need for follow-up was largely a formality. Thus, on the one hand, it can be argued that *relevant* follow-up to SEA is mostly always advisable due to a higher degree of uncertainty at strategic levels, higher risk of deviations or non-implementing some strategy actions, a greater exposure of strategies to socio-political factors and interventions during their lifecycle. This indicates that screening is rendered irrelevant as a separate step in follow-up. On the other hand, the empirical research with a limited sample size cannot prove that SEA follow-up is always advisable or relevant. The background and details of the cases suggest that they had specific rationales to trigger certain forms of follow-up, which may seem irrelevant for other cases (as the one mentioned above). In any case, practice emphasises the importance of scoping over screening as the former becomes a determinant of specific follow-up actions, objectives, level of ambition, and scale.

8.2.1.2 What to focus SEA follow-up on?

The theory presumes and empirical findings confirm that SEA follow-up focuses not only on the actual impacts of a strategy, but also on its context and goal-achievement. In other words, SEA follow-up can be intentionally and practically orientated towards the objectives and context of a strategy. Both positions fit well the current understanding of SEA follow-up; but, what is presently missing from SEA follow-up thinking and planning is the potential to make it more concentrated on the process of a strategy and on the effects, it may have on a strategy. In this respect, the empirical findings suggest that SEA follow-up proves to be more effective if at the very outset it was thought of as focused:

➤ *on the process of a strategy’s delivery, given its particularities, implementation risks, uncertainties, etc.* This point gives an additional impetus for integrating SEA follow-up with a strategy and links back to both empirical pragmatic reasons for integration (see ‘conformity

¹³⁸ Whether to envision SEA follow-up or not would not be considered if not for the need for SEA in the first place, especially in the jurisdictions where SEA is voluntary.

¹³⁹ On the other hand, the usefulness of SEA may be questioned for those strategies that due to their nature can hardly cause significant effects.

effect', Point 8.2.2.3) and theoretical arguments for integration (see Cherp *et al.* forthcoming; Partidario & Arts 2005). It also addresses the criticism about the relevance of linking SEA follow-up with the original plan and SEA (Arts 1998,330) by trying to link it to the process, if such occurs, rather than to a static document;

➤ *on the outcomes, it has for the strategy delivery process and can be reviewed in terms of its influences on it.* This point echoes the lessons learnt by SEA from policy analysis regarding the importance of SEA impacts on, and outcomes for a strategy (e.g., Bina 2007; Thissen 2000b) and links back to the shifts and trends in the current debate about SEA's concept, role, and effectiveness (e.g., Bina 2003; Fischer 2003; see also Chapter 2, Point 2.1.3). This way of orientating SEA follow-up is somewhat similar to planning principles emerging in some countries, e.g., the UK, where the progress of strategies is required to be reviewed in terms of their outcomes or process, rather than, for instance, outputs.

In some of the researched cases, some parts of SEA follow-up were found ineffective as they appeared to be *contents-oriented*, for instance when they envisioned and accomplished long-term monitoring without translating it into evaluation or management actions. Thus, on the one hand, contents-oriented SEA follow-up may be useful for generating new information; on the other hand, its 'stand-alone' contribution to a strategy is minimal and may not serve as a reason for follow-up per se.

8.2.1.3 *Effective scoping: planned, iterative, selective, guided*

The survey findings confirm that scoping has to play an important role in SEA follow-up, which is consistent with one of the identified theoretical assumptions. According to the survey analysis, scoping was most often 'developed in larger detail' and most often 'implemented to a larger degree' leaving behind even monitoring (Chapter 5). Why scoping is important in practice is argued in the above sections, while what may make it effective is discussed below.

The cross-case analysis found that effective scoping for follow-up takes place at least in two 'distinguishable' steps; first, the SEA/SA scoping and strategy planning processes help set out preliminary follow-up programs (especially, given that they occur concurrently) and second, the findings of the evaluation stage of SEA help refine the follow-up proposals and tie them to the specific actions of strategies. In some settings, consultations arranged for SEA reports and

draft strategies can be useful for getting comments on follow-up and enriching its design¹⁴⁰.

The empirical studies demonstrate that scoping is not an ad-hoc process; rather it is a selective, logical, iterative element of the follow-up design process, which to some degree relies on guiding documents, internal EA, policies, or planning principles. Any adaptations and revisions to SEA follow-up, once the implementation of its strategy has commenced, refer not to scoping, but to the SEA follow-up delivery¹⁴¹. It should also be noted that the scope of follow-up and SEA follow-up itself are relevant as long as a particular strategy is relevant.

8.2.1.4 A need to influence the SEA follow-up transformation into a strategy

According to the research, it is crucial to understand that the integration of strategy performance with SEA follow-up for their simultaneous delivery starts from another round of screening and scoping: this time from the perspective of strategic proponents (planners)¹⁴². Some conservative views that SEMP may be designed to take over the SEA functions from the SEA/strategy-making stage through the implementation to the next SEA/planning cycle (e.g., George 2000) do not seem to be feasible, for they mean a duplication of work. Since no separate SEMP are typically prepared for strategies, in contrast to project EMPs, a strategy and its SEA follow-up constitute a single document. To be included into it, often the already 'scoped' SEA mitigation, enhancement and monitoring proposals undergo another round of screening and scoping by the planners in terms of e.g., their *necessity* (desirability, utility) for a strategy, *urgency* (whether should be addressed now or can be postponed until more research is done or it moves higher on the political agenda); *relevance* to the current public, political and planning priorities (also in terms of fitting into the "dominant policy discourse" (see Runhaar 2009)), *feasibility* (e.g., technical, financial) and *integrability* with strategies' performance management at minimal *cost and efforts*.

This process may comprise a series of decisions resulting in transformation and inclusion of some parts of SEA follow-up proposals into various, relevant parts of a strategy. Meanwhile, as the empirical analysis shows, some parts of SEA follow-up proposals (even monitoring proposals for significant adverse environmental impacts) are scoped out, often without any

¹⁴⁰ Of note is the UK's informal tradition is to consult with the statutory bodies on scoping report rather than on the completed SEA report. This provides for a possibility -which is yet to be taken advantage of- to gain inputs to preliminary follow-up schemes when consulting on provisional LTPs and SEA scoping reports.

¹⁴¹ Thus, scoping as such is less 'emergent' in nature; it can also have some informal and irrational elements, but its core idea is more rationalistic.

¹⁴² This is especially relevant to the situations when SEA is worked out by an external consultant and the key implementers are not those who developed the strategy, as it was the case with the FMP. Nonetheless, even in-house SEA follow-up goes through these steps.

justification. Theoretically, it can be argued that such situations might be more common when SEA is performed as a box-ticking exercise or when it is conducted after the planning process solely to inform decision-makers. Further practical research will be needed to explore this; for now, the conducted analysis proves that regardless of the SEA and planning integration mode, e.g., whether it is concurrent or integrated, there is a similar risk of scoping out SEA follow-up elements. Therefore, there is an obvious need to target the SEA/planning process with the view of better including follow-up and better considering conditions to enable follow-up.

This issue relates to the debates about the effectiveness of SEA, namely the difficulty of encouraging the integration of SEA findings into decision-making and the ways in which SEA manages to change a planning initiative (e.g., Aschemann 2004; Curran *et al.* 1998; Furman & Hilden 2001; Short *et al.* 2004). From the perspective of a comprehensive follow-up, deficient, unjustified inclusion may bring about a poor integration of follow-up issues. This can be followed by either a bad interior integration or, ironically, a good integration of SEA follow-up delivery with strategy performance, but with some potentially important SEA follow-up elements missing. In this light, the assumption that SEA follow-up should be coordinated and consistent with the implementation actions of a PPP is still important for its effective performance, but its relevance as a measure of follow-up effectiveness in terms of the issue coverage may become questionable.

In the light of the above, a logical question is who should influence the transformation of SEA follow-up into a part of a strategy? Given that the survey results highlight the problem of narrow obligations and divided responsibilities among the follow-up actors, which is similar to the problem mentioned in the SEA literature as a gap between the SEA consultants and PPP proponents (Chapter 2), it is basically both SEA developers and PPP proponents who should and are able to influence it. One-sided input will bring about only limited results. Some pressure can be imposed by the context (see recommendations).

8.2.1.5 *Environmental components 'lost' or weak*

As practice shows, the capacity of SEA follow-up to ensure environmental integration in the implementation of strategies is still to be developed. Whereas the type, sectoral needs and values, and objectives of strategies obviously affect the quantity and quality of environmental follow-up measures, a number of points come up beyond this. The first point relates to designing follow-up. After SEA follow-up and strategy monitoring (or risk management) schemes had been integrated, the ratio of environmental to performance indicators was around 1-2 to 15-17, the environmental indicator(s) being mandatory as a rule (the LTPs, Chapter 6

& Appendix I). The reasons behind this included the unjustified ‘irrelevance’ of SEA monitoring proposals, insufficient funding, the purported ability of mitigation measures to offset the impacts for which monitoring was proposed and the unpreparedness of organisational structures to embrace ‘environmental innovations’. While such a weakness of SEA follow-up was especially apparent with regard to the environment, similar barriers are found in the SEA literature relative to sustainability principles (e.g., Nykvist & Nilsson 2009). Second, rarely was a working mechanism proposed or utilised for capturing and responding to environmental and socio-economic issues unknown or uncertain at the moment of developing SEA follow-up. While some provisions for adequate, timely identification of impacts of, and (emergent) changes in a strategy, and response to these, were developed in SEA follow-up designs, the implementation faced limitations in terms of inter-/intra-organisational or centrally-regulated procedures (e.g., response speed constraints, the need to stick to a budget (reporting) year and pre-defined formal reviews, long political and stakeholder consultations, additional resources (all cases, Chapters 6 & 7, Appendix I)).

The third message concerned the degree of public awareness and interest in the environment, which influenced some local political priorities and the commitment of strategy implementers to implement SEA follow-up (see linkages above; also Chapters 6 & 7). Both this and the above design-related aspects should be thought of in terms of how they can be influenced. In this respect, it should be recalled that changes in environmental perceptions as a result of SEA and EIA can occur over time (e.g., Peterlin *et al.* 2008; Therivel & Minas 2002) and that public awareness can improve through ongoing SEA follow-up; thus, SEA follow-up may gain more support in a longer-term perspective.

8.2.1.6 Practised forms of monitoring, evaluation and management and their coherence

The SEA literature makes a limited mention of how and to what extent SEA follow-up is really implemented, if designed at all. It nonetheless mentions the two elements that can be observed in practice, i.e. monitoring (including conformance follow-up) and reporting (dissemination follow-up) (e.g., Hanusch & Glasson 2008; Partidario & Fischer 2004). The empirical analyses shed light both on which follow-up activities are implemented and to what extent.

The survey results demonstrate that in line with the theoretical findings and conclusions of other existing practical analyses, monitoring appears to be often ‘implemented to a larger

degree' and 'developed in larger detail' SEA follow-up activity¹⁴³. By contrast, the case analyses suggest that communication/reporting is more extensively elaborated and better delivered follow-up element, while monitoring covers a whole spectrum of actions envisioned and implemented to different degrees. The most frequent of them is monitoring of actual implementation activities within strategies (type B), of the broader formulation/delivery context (type A1), of actual impacts of strategies (type A3), and of other activities related to strategies (type C), often ad-hoc (Chapter 7, Point 7.4.3). The case studies suggest that the application of these monitoring types occurs in various combinations and never as a self-standing process, but rather in integration with existing monitoring activities of a strategy.

According to the survey results, follow-up evaluation was most often implemented just satisfactorily. This indicates the lack of practical understanding of the importance of evaluative judgments for a strategy delivery and learning, which is also stressed in the SEA literature (Chapters 2 & 4) and points to the need to strengthen this key component of follow-up. At the same time, the case analyses provide a better understanding of the need for evaluations (reviews). However, these evaluations are less SEA follow-up-born and more stem from the generic follow-up and delivery practice of the strategies. The integrated follow-up evaluation types most frequently encompass the evaluation of the impacts of strategies, their performance, and goal-achievement. The consistency test shows that out of these three tracks the evaluation of goal-achievement is inconsistent with the corresponding monitoring types. Thus, efforts are needed to more coherently link monitoring and evaluation in SEA follow-up, if it intends to enrich the strategies with value-based and rigorous judgments.

A rather striking survey's observation concerns follow-up management, which is reported as most often implemented satisfactorily despite being hardly envisioned. The survey and cross-case findings are mutually supportive in that whereas some follow-up elements, especially management, were not considered essential and were less well-designed, they gained significance *during* the strategy and follow-up implementation and were implemented ad hoc. That being said, management has not been at the heart of the SEA follow-up conception and it is only recently that it has begun to be recognised as vital (Chapters 2 & 4). This finding can probably be interpreted in terms of the 'inertia' of SEA developers, who have not yet followed the recent trends in SEA's evolution and do not extend their monitoring (and

¹⁴³ Monitoring is the second in both categories after SEA follow-up scoping (Chapter 5), which seems to be envisioned and implemented to that large extent mostly due to its *pre-decisional* position in SEA/planning.

evaluation) proposals to management actions. Yet, the actual practice of strategy and follow-up delivery and formation brings the management potential of SEA follow-up to the forefront (see also benefits below). Another consistency test highlighted the merely partial relevance of the theoretically delineated relationships between management, evaluation, and monitoring to practice (Chapter 7, Point 7.4.3). This implies that there are other (than the theoretically presumed) ways of relating and providing relevant information between the follow-up activities. Regarding the relationship between the extent to which the SEA follow-up elements are planned and delivered, the survey analysis indicates no correlation for monitoring and evaluation, a very weak positive relationship for scoping and communication, and a 'weak positive' relationship for management (Chapter 5). The cross-case analysis shows a clearer relationship, namely those SEA follow-up activities and their parts that were planned tended to be implemented. The findings assume that many follow-up programs were not 'formulated' but rather 'formed' as the strategies' delivery required. Recalling the believed ability of strategies to be 'formed' or change 'informally' (see Chapter 2, Point 2.2) and contrasting this with the above conclusion suggests that SEA follow-ups may follow the same informal rules and formation processes as their strategies.

Finally, the case analyses find that the level and type of strategies affect the choice of monitoring and evaluation types (Chapter 6 & Appendix I), which is in line with the logics of the literature findings, e.g., Partidario & Fischer (2004) assume that SEA follow-up may have different tasks when applied to plans or programs. However, what often influences the practice of monitoring and evaluation is the management needs that may (ad-hoc) require changes to the pre-selected follow-up modes. This links back to the arguably formational rather than formulational nature of SEA follow-up and repeatedly stresses the value of the managerial potential in follow-up.

8.2.1.7 *Effective communication: selective, targeted, diverse*

Empirical findings confirm the theoretical assumption of SEA follow-up that different stakeholder involvement forms described in the SEA literature and used for SEA/planning can be incorporated in SEA follow-up design. In fact, the cross-case and individual case analyses' findings prove that all cases utilise many of these communication methods, from surveys to expert panels, mostly to inform about and partially to engage the stakeholders and public in a

strategy and/or follow-up delivery¹⁴⁴. No separate communication methods are usually designed specifically for SEA follow-up; rather those designed for a strategy are utilised to meet the purposes of both. The envisioned communication measures do go “beyond just informing” as Cherp *et al.* (forthcoming) assume should be the case. This did not appear to be very resource-demanding, given that strategy and follow-up were integrated (see Chapter 6 & Appendix I).

In general, the empirical finding that communication/reporting seems to be more elaborated and better-to-best delivered among the follow-up activities (‘good performance’ across cases) can be explained by the minimal additional efforts needed to establish and maintain it, the corresponding formal provisions occasionally found in different countries and by the reliance on existing and/or established (during the SEA and planning process) communication patterns.

The importance of follow-up communication is certainly not underestimated by the implementers, who, at the same time, are quite selective as to what kind of information and to whom they communicate. This is in line with the messages from the theories of strategy formation, learning and knowledge management that various levels of communication detail should be determined for different stakeholder groups (Chapters 2 & 4). Indeed, SEA follow-up envisions communicating relevant information to *relevant strategic actors*, which Cherp *et al.* (2007) stress as vital for SEA. The level of (technical) detail of communicated follow-up information varies depending on the target groups, e.g., detailed internal reporting in-between monitoring, evaluation and management stages; headline information destined for higher-level management, government, regulators; regular newsletters and selected information on key issues and topics prepared for the public (see analysis in Chapters 6 & 7, Appendix I).

8.2.2 Structure-specific lessons and messages

This section includes messages and lessons that refer to the structure of SEA follow-up and can be partly controlled by a strategy and follow-up (see the conceptualisation in Chapter 4).

8.2.2.1 Accountability vs. the ‘paradox of responsibility’

The on-ground findings only partially support the ‘paradox of responsibility’ that is presumed to be intrinsic to strategic planning and assessment (Chapter 2). The SEA follow-up practice confronts one and supports another of its two premises, i.e. a) that nobody is in charge in complex processes and b) that therefore, all stakeholders should feel a kind of responsibility.

¹⁴⁴ In contrast to EIA follow-up, where the local public knowledge of the natural environment is an asset, the utility of involving the public in strategic follow-up is limited to ascertaining and considering cultural values and opinions on various aspects of strategy delivery.

In fact, the follow-up and strategy implementers consider responsibility and accountability for follow-up as part of routine organisational function, culture, and procedures. These are underpinned by the acceptance of roles and coordination that proved to be essential for taking SEA follow-up further as part of a strategy, given that follow-up operates in a multi-actor decision-making context. The ‘diffused’ responsibility (or accountability) problem can also be prevented by the willingness of the implementers to be on-track and respect the relevant regulations, by external control by the regulators or the public, if such exists, and by accountability as it is approached within the implementing organisation and regulated by contractual terms with sub-implementers (see Chapter 6 & Appendix I). Then, there is some shared ‘all-party’ feeling of accountability, and practice recognises the important role of networking and dialogue stressed by the ‘paradox of responsibility’ (see Network section).

8.2.2.2 Which forms of networks function and which should be encouraged

The empirical findings go beyond confirming the theoretical assumption of a possibly significant role of networks for SEA. They look into the actor networks in SEA follow-up and find them to be dynamic and taking various forms. Maintaining networks requires time and commitment that vanish when the organising principle of a network weakens or its objective is reached. Despite these challenges, practice reveals three key types of networks that prove to be important to SEA follow-up and worth developing/maintaining as they contribute to direct and indirect benefits of SEA follow-up, strategies, implementers, and stakeholders. They are formed mostly thematically and horizontally or vertically, as needed, and are as follows:

- Emergency networks: short-term mostly formal networks that are formed to deal with the ‘early-alarm signals’ identified through follow-up. Establishing or rarely forming emergency networks involves mapping exercise by the relevant management levels (e.g., depending on whether some issue emerged at operating or mid-management levels or is going beyond the strategy). Coordination of such networks lies with a designated and competent person(s);
- Coordinated networks: these are formal networks promoted by the implementers, government, or public/community groups in the form of partnerships, forums, strategy-specific action or thematic (sub)groups, consultants, sub-contractors groups, review panels, etc. Externally they draw on shared interests and internally they draw on the formal organisational procedures for exchange of operating follow-up data, reporting, etc. They often rely on the SEA and planning-born platforms and supplement the cooperation processes of SEA follow-up and strategy. Leadership of coordinated (formal) networks is essential and is usually assigned to the officers with a necessary competence; and

➤ **Amorphous networks:** as the implementation proceeds, some formal networks are transformed into informal ones that seek to share the issues and possible solutions about SEA follow-up and strategy implementation. The importance of amorphous networks is that if SEA follow-up is carried out, they support the inter-strategy and inter-organisational connections created during the SEA/planning beyond any formalities (e.g., no need to ‘do with additional paper work’). Amorphous networks are not stable with their ‘boundaries’ being changed over time and with an unclear leadership function. Nonetheless, as the empirical findings show, they accumulate knowledge and are wide and diverse enough to serve as the basis for emergency or coordinated networks, when a need for them arises (e.g., the FMP, Merseyside). It was noted that while formal networks were intentionally encouraged by the developers, informal networks were often indirect benefits of SEA/planning or SEA follow-up/strategy delivery processes (e.g., Merseyside, Lancashire). Whether a formal or informal element (or direct or indirect benefit) of SEA follow-up, networks, depending on certain factors, tended to cause/contribute to the additional benefits. The latter included a raised mutual understanding, legitimacy and credibility of a strategy and its proponents, transparency for SEA follow-up delivery, managerial competence, cooperation among the stakeholders, and social learning.

8.2.2.3 *‘Splash’ and ‘conformity’ effects in action*

The empirical findings shed light on the complexities of SEA follow-up expressed as ‘splash’ and ‘conformity’ effects¹⁴⁵ as discussed earlier (Chapter 2):

➤ **‘Splash effect’.** The practice of SEA follow-up recognises that it can be non-linear and irrational and may need to deal with the issues at the same, higher and lower decision levels. Among other monitoring tasks, it aims to observe the relevant changes/issues at various planning levels through positioning itself in the broader context of the horizontal or vertical initiatives. Within the SEA follow-up process, ‘splash’ is addressed through making SEA follow-up objectives, targets, policies, standards, etc. consistent with those of upper, lower, or horizontal strategies. To some extent, the ‘splash effect’ becomes a constituent of follow-up programs and is attempted to be made more structured through its inclusion in hierarchical PPPs and SEAs. This inclusion seems to be guided by the temporal causality and supported by such mechanisms as regular revisions. However, currently, the performance of this aspect

¹⁴⁵ To recall, ‘splash effect’ means that the effects of a strategy may spread in all directions and thus follow-up to SEA needs to observe the same, higher and lower decision levels; ‘conformity effect’ requires that SEA follow-up must be coordinated & consistent with the implementation of a PPP and respond to its changes.

is quite weak and points to a need for a better SEA and follow-up tiering. Another assumption about a 'splash' effect was that it may occur in SEA follow-up not necessarily based on tiering (Chapter 2). In this respect, the empirical research suggests that tracking such effects at the current development stage of SEA follow-up practice is hardly feasible or necessary¹⁴⁶.

➤ 'Conformity effect': the empirical findings confirm that following modifications in a PPP is hard for SEA follow-up (and vice versa). However, they also demonstrate that the challenge of follow-up is not merely in being 'consistent' with strategy delivery, as the SEA literature presumes. There are other process, structural, and context constraints that make it difficult for follow-up and strategy performance to be consistent and mutually responsive (see 'obstacles'; also Chapters 6 & 7). Both theory and practice stressed the need to coordinate SEA follow-up and strategy performance; however, they arrived at this point from different ends. Practice illustrates that the rationales behind coordinating and tailoring SEA follow-up to strategy implementation stem not from the understanding of complexities of strategic planning and implementation, which is a case of theory, but from a procedural necessity and feasibility concerns (see interior integration, Chapter 6, Appendix I). In the light of the above-discussed '*coherence*', it can be noted that means to support conformity need to be further developed.

8.2.3 Cross-cutting lessons and messages

This section draws messages and lessons for those SEA follow-up issues that involve two or all three dimensions of the SEA follow-up framework.

8.2.3.1 *What triggers SEA follow-up*

The survey findings show that legislative requirements prove to be the greatest trigger for planning and conducting SEA follow-up. However, in the absence of those, SEA programs, ToR requirements *and/or* ad hoc/consultation arrangements determined the need for SEA follow-up in around 45% of cases. This is in line with the SEA follow-up literature analysis, which suggests that legal requirements are an essential precondition for preparing SEA follow-up (e.g., Arts *et al.* 2001; Partidario & Arts 2005), despite the exceptional cases when it was envisioned based on the needs of the SEA object (e.g., Partidario & Fischer 2004,242).

The case analyses suggest another rationale for SEA follow-up, which is somewhat close to SEA program/ToR requirements, less binding than legal provisions and yet powerful enough

¹⁴⁶ This question may be re-raised in the future when the SEA follow-up practice will more effectively manage the so-far weak mechanisms for tracking impacts and exchanging information along the three-directional tiers.

to secure the consideration of SEA follow-up. This is internal organisational EA policies and planning principles and recommendations or directions of higher-level strategies, which require (sometimes due to their own SEAs) the lower-order strategies to detail monitoring and evaluation processes including SEA follow-up (e.g., the FMP or CASP).

Similar ‘soft’ provisions issued on a case-by-case basis are also seen to be effective, especially if underpinned by binding approval conditions. However, approval conditions alone do not prove to be an effective option for deciding on the need for SEA follow-up, mostly because they come too late in the process after a SEA and its strategy are completed.

Although it can be argued that approval conditions are more suitable for private industry initiatives or for specific sectors, where they arm the regulators with an enforcement tool, the importance of approval conditions should not be disregarded in the public sector either. They can serve as a guarantee of environmental and sustainability quality of strategy delivery in the eyes of high-level government bodies or stakeholders and as self-auditing benchmarks. This might imply only insignificant additional work for follow-up implementers if the SEA of a PPP was effective and the PPP considered SEA follow-up in its performance management.

Overall, although legal provisions are still important for SEA follow-up, it can be instigated in their absence if there is a formal SEA framework, relevant internal environmental policies and planning principles, ad hoc stakeholder agreements or case-specific needs and corresponding obligations. Thus, the introduction of legal requirements for SEA follow-up is desirable for its systematic institutionalisation, especially if the mentioned conditions do not exist.

8.2.3.2 *How outcomes strengthen the SEA follow-up rationales*

The examination of SEA follow-up outcomes and benefits proved to be essential as first, similarly to SEA and EIA follow-up (e.g., Arts & Morrison-Saunders 2004b), the SEA follow-up practice seems to be suffering from a lack of understanding of its benefits. This resulted in limited support of SEA follow-up and affected the decisions about its need and scope. The second reason is that a greater clarity about benefits can provide society with additional *practical arguments* in favour and necessity of SEA follow-up. This research allowed for progress in respect to both points by bringing together the SEA follow-up outcomes identified through the empirical investigation and the theoretical outcomes validated through the e-survey (Figure 8:6). This section looks specifically into the two aspects that proved to be vital and possibly have a significant potential for institutionalising SEA follow-up and considers some distinctions between the theory and empirics in relation to the SEA follow-up outcomes.

First, while the formally stated SEA follow-up goals across cases made no mention of corporate outcomes, the perceived benefits formed a whole cluster related to them (Figure 8:6). The benefits proposed in the e-survey also did not mention corporate benefits as no such assumptions were identified in the SEA literature. Yet, nowadays when the concepts of corporate social responsibility, environmental accountability and public-private partnerships for environmental sustainability have seen a global spread (e.g., Kilcullen & J. 1999; Najam *et al.* 2006), corporate benefits are desired by many organisations. Presently, corporate benefits are indirect outcomes of SEA follow-up unintentionally resulting from other direct benefits. This is precisely what needs to be changed. A strong case for SEA follow-up should be made by transforming corporate benefits from unexpected but desired outcomes into clear reasons which can motivate the organisations' willingness to engage in SEA follow-up.

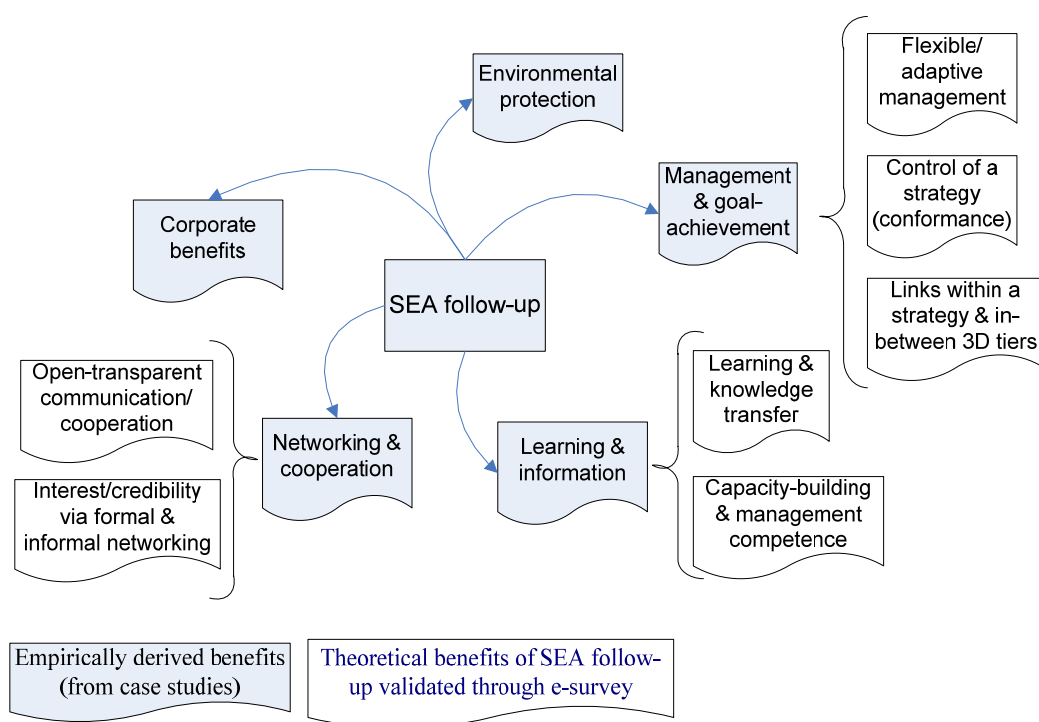


Figure 8:6 Bringing together empirical and validated theoretical outcomes of SEA follow-up

Second, similarly to corporate benefits, neither the theory review-based potential outcomes of SEA follow-up (Chapters 2 & 5), nor the formal SEA follow-up goals across cases mentioned one of its substantive aims, i.e. the one formulated in this research as ‘to integrate environmental concerns along the lifecycle of strategies’ (Chapter 2). This omission was pointed out by one of the survey respondents in line with the cases analysis, which identified the perceived benefits related exactly to environmental protection (Figure 8:6, also Chapter 7). This group of benefits should not be overlooked as it further relates to the overarching aim of SEA to foster a desired transition to sustainability.

Corporate and environmental benefits of SEA follow-up should be highlighted in a similar way as strategic environmental management, a branch of the strategic management discipline, or environmental auditing have been promoting corporate and environmental benefits over the last 30-35 years (see e.g., Greeno *et al.* 1987; Humphrey & Hadley 2000; Marcus 1998). As a process integrated with a strategy and intended to support it throughout its lifecycle, SEA follow-up demonstrates the potential to deliver longer-term outcomes, e.g., continuous improvement of environmental performance and management practices; favourable publicity; attainment of stakeholders' environmental expectations; increased environmental awareness; improved corporate image, reputation, and public relations. In this light, SEA follow-up can be argued to be one of the ways to “green” the implementing organisations and partners.

Finally, the empirical findings and theoretical assumptions are generally consistent in terms of the objectives and benefits of SEA follow-up, except for one aspect. That is, neither the case studies nor the survey respondents suggested that SEA follow-up was initiated to provide or result in providing information for “assessing the relevance and potential impacts of certain options on which decision-making is pending” (Partidario & Arts 2005,255). The possibility of this rationale or potential benefit is not denied; however, it might be valid for relatively few or specific cases and thus can hardly be included in the key generic SEA follow-up principles.

8.2.3.3 Responsiveness as a function of three factors

For effective follow-up management there should be clearly specified people with the competence and authority to implement not only the routine minor corrections, but also the necessary changes to both SEA follow-up and the strategy, to be on track and beyond. Ideally, people with the authority and competence to take decisions about modifications to SEA follow-up and strategy should be those involved in monitoring and/or evaluation. In the actual follow-up and strategy management with annual revision cycles there is a response gap of around half a year in case of relatively significant changes and more than a year in case of radical changes involving political processes, stakeholder consultation rounds, or additional research/analysis. This seems to be reasonable as, first, most cases argue that nothing that significant occurs during the operating year that would require immediate cardinal modifications and, second, the causality problem often requires additional observations or research that requires time. Another related concern is that a swift management response may result in lower transparency and decreased political or public support in a way conflicting with the planning principles and aspirations of SEA follow-up and strategy implementers.

Nonetheless, there should be a guarantee that in case of emergent and significant changes the necessary response measures for continuous sustainability- and environmentally-friendly implementation is secured. As the cross-case analysis shows, due to the greater dependence of a large-scale mutual responsiveness of SEA follow-up and strategy on the context and structural factors (see linkages above), this can be attained through the binding conditions or other regulations, e.g., in Saskatchewan forestry the legal and case-specific provisions made a case for additional EAs to follow emergent changes in FMPs.

Thus, effective responsiveness and adaptiveness of SEA follow-up and strategy is a function of three key variables, i.e. 1) a mechanism which allows for a response and is generically established in the context or structure of SEA follow-up and strategy, 2) properly designed and ongoing follow-up and strategy monitoring schemes to allow for capturing changes, and 3) specified people with the competence and authority to both decide on routine, deliberate response and argue a case for a response to emergent changes in SEA follow-up and strategy.

8.2.3.4 SEA follow-up design vs. implementation

The empirical findings testify that formulation and implementation of at least some SEA follow-up activities are not that rare in practice as it is conventionally believed. The results of the survey demonstrate that *all key SEA follow-up activities, i.e. scoping, monitoring, evaluation, management, and communication, were envisioned and implemented* to a different extent (Chapter 5). On the one hand, this contradicts the statements of some SEA papers that follow-up/monitoring to SEA is seldom envisioned and seldom or never implemented (e.g., Therivel & Brown 1999). One optimistic reason for this can possibly be that within the last decade SEA has been slowly advancing not only in terms of its ex-ante, but also in terms of its ex-post stages (see Chapter 2 &

[Appendix A](#) for SEA/follow-up development stages)¹⁴⁷. There are some exceptions though that conform more to the SEA literature findings; namely, the analysis revealed few cases when SEA follow-up was envisioned according to law, approval conditions or consultations, but was not implemented (Chapter 5). On the other hand, this raises a question: how does the effective performance of SEA follow-up depend on the extent to which its elements are formally designed and actually delivered and how are they connected? In this light, two considerations should be emphasised.

¹⁴⁷ It cannot be disregarded though that both the survey and case studies samples are not fully representative.

First, it is essential to look into the extent to which SEA follow-up proves and needs to be a rational, formal, deliberate, and fully informed process, as the traditional SEA assumes (Chapter 2). Practice shows that planning settings and formal rules require that SEA follow-up be formally designed and validated by the inclusion in strategy delivery frameworks and organisational structure of the implementers. Otherwise, it loses organisational anchoring. Formal elements do not make SEA follow-up stagnant or inflexible though. Within its design, SEA follow-up considers the realities of strategic policy-making, planning, and assessment that convert them into non-linear processes by making provisions for flexible and adaptive actions. Thus, drawing on the traditional rationalistic assumptions is useful if it allows for the generation of a relevant (at a given time), formal SEA follow-up design and as long as this design includes some flexibility elements. In this case, it serves as the axis against which SEA follow-up can deliberately or emergently fluctuate as it is conducted and new issues emerge.

Second, the findings of both the survey and case analyses show that the process SEA follow-up elements are hardly ever designed and implemented to the same degree (Chapters 5 & 7). While the survey analysis generally showed no-to-weak associations between the categories of the extent to which SEA follow-up elements were envisioned and implemented, the cross-case analysis identified an interesting pattern. Specifically, both the structural and process SEA follow-up components were more weakly designed than they were later implemented (two exceptions out of 12 were when the process elements of follow-up were better and more comprehensively designed than implemented (Chapter 7)). Consequently, it was mostly the extent to which SEA follow-up was *implemented* rather than its design that determined a rather good overall performance of the SEA follow-up cases.

Considering the above and based on the empirical findings, two practical scenarios of a satisfactory/good SEA follow-up performance can be pinpointed:

- an ‘ambitious’ follow-up design with adaptive elements and a comparatively less ambitious implementation, yet good enough to follow the formation/delivery of a strategy (knowledge and competence are behind the innovative and ambitious follow-up schemes, which later helps modify them as per the strategy/follow-up implementation constraints) and
- an ‘average’ follow-up design with adaptive elements that is ad hoc improved/modified to be in line with the needs of a strategy (no extra aspirations are behind SEA follow-up schemes, rather the diligence to accomplish what was planned coupled with some flexibility to keep ‘what was planned’ relevant to a strategy).

8.2.3.5 *The role of communities and individuals*

The role of individuals and communities in SEA follow-up within the stakeholder parties proved to be vital for both designing and accomplishing follow-up. The argument here goes beyond the agreement between the theory and practice of SEA follow-up that it can be driven by various stakeholder parties, similarly to EIA follow-up (e.g., Morrison-Saunders & Arts 2004; Ross 2004). Rather, what is emphasised is the significant role an individual or a group can play within *a certain stakeholder party* in influencing SEA follow-up. In fact, regardless of which stakeholder party an individual or a community belonged to, he/she appeared to have some possibilities and levers to instigate or improve SEA follow-up and its enabling conditions (all cases). While they evidently had different motives for influencing SEA follow-up, their input was instrumental in forcing changes to the structural and process dimensions of follow-up assuring its increased utility for a strategy.

For example, in the Merseyside LTP environmental follow-up was coordinated by a group of environmentally-concerned and competent professionals, who encouraged uniform follow-up performance across the five districts; nonetheless, the district(s) to which they belonged to some extent performed better than the others did. The Merseyside strategy is also linked to research communities, universities, etc. that helps advance its follow-up. In contrast, the Blackpool LTP lacks a ‘core’ person who would drive follow-up with due commitment, skills, and enthusiasm. Another instance is the Canadian FMP which implements a combined proponent-, regulator-, and public-driven SEA follow-up, where each party has a competent person(s) believing in the need and importance of SEA follow-up. This case also practises institutional brokering and encourages Master or Doctoral research related to its activities.

Based on the empirical analysis, it can also be argued that the extent to which SEA follow-up benefits are perceived, understood and communicated is influenced by such factors as whether there is an organisational culture of providing conditions for environmental and sustainability-related capacity-building, practising institutional brokering and involvement of consultants, engaging in/creating research groups (a sort of local ‘epistemic communities’), etc.

Ultimately, the emerged linkages (see above) vividly illustrate how differently SEA follow-up can be approached, designed, and performed depending on the individual’s or community’s attitudes (from negative to enthusiastic), commitment (from passive to active or from low to high), and understanding of follow-up goals and benefits, given similar context conditions.

8.2.3.6 Which problems to consider upfront

This section aims to increase the awareness about the possible obstacles to SEA follow-up, so that its users could consider those from the very beginning instead of being unexpectedly faced by them at various points of the process. The question about which obstacles need to be overcome to enable an effective SEA follow-up seems to be quite well thought through, if not ‘felt’ through by SEA researchers, practitioners, and SEA follow-up implementers. Figure 8:7 shows a diversity of problems identified both empirically and theoretically, with a subsequent validation of the latter through the e-survey.

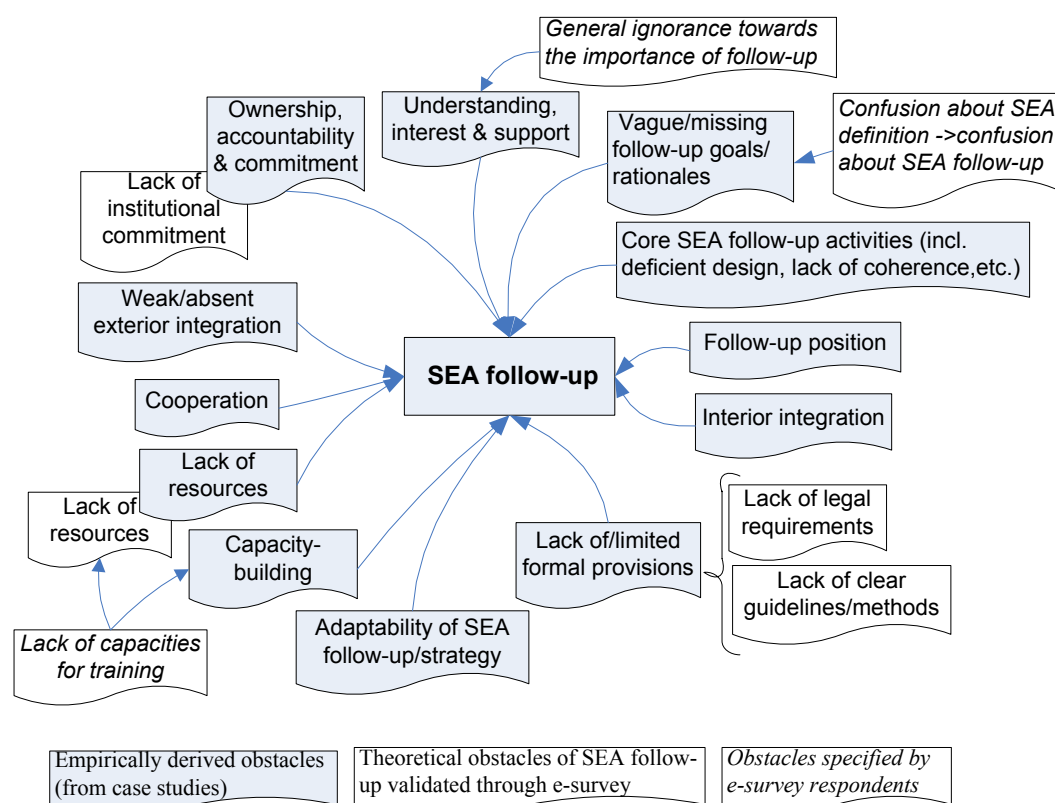


Figure 8:7 Pulling together obstacles to SEA follow-up

The survey brought to the SEA community a number of problems, all of which were found quite significant with the lack of institutional commitment topping the list and the lack of legal requirements coming the last. The top ranking of the former would be quite unexpected if not for the cross-case analysis findings and the previously identified dependence of SEA follow-up on the levels of commitment and types of attitude (see linkages above & Chapter 7). Limited formal provisions including methodological guidance and the lack of resources continue to be a problem in line with findings of other SEA monitoring/SEA follow-up studies (e.g., Hanusch & Glasson 2008). Several problems stem from the conceptual confusion about the definition and role of SEA, which is stressed in the analysed SEA discourse (Chapter 2), resulting in confusion about the definition of SEA follow-up and the need for it

(Chapters 2, 4 & 5). Another related problem concerns the overall ignorance about the essence and function of SEA follow-up. Both issues are linked to the problems of the limited understanding of SEA follow-up and its rationales/goals as it was argued earlier and point to the need to better communicate these to those who might be involved in follow-up. In this respect, a greater clarity about the benefits and added-values of SEA follow-up as a result of this research can be useful. The possible ways to approach the issues of exterior and interior integration, cooperation and adaptability of SEA follow-up and strategy are dealt with in the relevant sections above (see scoping, responsiveness). While the obstacles to SEA follow-up are often similar for many cases, their extent varies from case to case. In this respect, some recommendations at the end of this Chapter may be helpful.

8.2.3.7 Which forms of learning occur and which should be encouraged

Linking the practice of the SEA follow-up process back to the theories of learning and information reveals its essence as a combination of various types of learning as both a process and output. The launch or revisions of SEA follow-up exemplify ‘discontinuous learning’ in organisations and individuals involved in follow-up. The empirical analysis also suggests that the routine of SEA follow-up and strategy delivery epitomises ‘daily learning’, when a continuous and slow accumulation of knowledge occurs and practices are improved (see e.g., Pitcher 2003, also Chapters 2, 6 & 7). Each follow-up activity provides for technical learning in its implementers, e.g., through collecting, processing, evaluating and interpreting the information, searching for ways to respond to it, and usually results in some tangible outputs. Personal and collective social learning is an ‘intangible’ outcome of discussions and exchange of information among the networks’ members. Regular revisions, responsiveness and adaptiveness of strategies and their SEA follow-up contribute to both instrumental and procedural learning, which occurs at multiple time scales and to a different degree.

It should be noted that the practice of instrumental and procedural learning in terms of learning from the past in order to improve future practice faces a number of difficulties, e.g., the lack of coherence in-between the SEA follow-up activities, inconsistencies in reporting format, the problem of causality/uncertainty, ineffective cooperation, and discontinuity of staff. To address these, methods for knowledge management should be considered, e.g., the culture of *institutional (or organisational) memory* (e.g., Stein & Zwass 1995) may be needed, which will help preserve data, experience, skills, and know-how held by people and required for effective use of information collected/generated through SEA follow-up over the years.

Continuity of both staff and stakeholder involvement is frequently in a positive correlation with a managerial component and capacity-building potential and supports a culture of credible and joint thinking and continuity of experience (e.g., the FMP, CASP, Merseyside). The empirical findings also suggest that SEA follow-up and strategy delivery may help realise the importance of social learning and collective cognitive processes resulting in attitudinal and behavioural changes in organisations and individuals.

Many practical forms of learning in SEA follow-up are unintended and indirect effects of its or strategy implementation. One important area, namely learning *for* SEA follow-up, seems to be largely overlooked. The often-named reason for this, i.e. the existence of sufficient competences and skills at all operating levels of SEA follow-up, often proves to be quite superficial. This form of learning needs to be encouraged; other learning forms require a more deliberate and purpose-oriented approach. Finally, efforts are needed to reduce such obstacles to learning as low commitment and negative or indifferent attitudes to SEA follow-up.

8.2.3.8 *Is SEA follow-up practice growing?*

The assumption of the SEA follow-up research and one of its rationales based on the literature analysis was that SEA follow-up practice is quite rare. The survey results only partly confirm this as according to it *some follow-up measures were envisioned in 30 to 60% of SEAs*. The unexpectedly high rate of SEA follow-up, given the limited attention to this topic and limited practical experience (e.g., in Arts 1998; Gachechiladze *et al.* 2009; Nilsson *et al.* 2009; Partidario & Fischer 2004), illuminates a possibly increasing recognition of its importance, reflected by envisioning some follow-up measures to SEAs not only in developed, but also in developing countries (see Chapter 5). At the same time, including some follow-up measures does not necessarily mean that a meaningful SEA follow-up has been designed or these ‘some’ measures have been implemented. Besides, they might include only monitoring, which is anyway the most common element of follow-up (also Point 8.2.1.6). This consideration is validated by the preparatory research phase, which verified the rationale and explained the difficulties with the search for *researchable* cases for empirical investigation (Chapter 3).

8.2.3.9 *Effectiveness increases with retrial*

While some, mostly methodological, reasons for why the six SEA follow-up cases demonstrated a rather good performance were considered earlier (Chapter 7), there is also the potential to explain this from the perspective of implementation studies and policy analysis. Traditional implementation analysis suggests that the more times a policy is introduced, the greater is the chance of its successful implementation (e.g., John 1998). This indirectly

strengthens the theoretical positions and the empirical evidence that SEA follow-up can be found and better implemented in mature (S)EA systems, where assessments integrated into planning and policy-making are repeatedly practised. This is the case for nearly all case studies of this research. Most of them had a previous quite successful SA or EA experience with similar, higher or related strategies in their jurisdictions.

In this light, it can be assumed that the more times SEA follow-up is retried, the more effective it can be in contributing to a better implementation of a strategy and resulting in more direct and indirect benefits. Moreover, the survey results show a tendency of a growing follow-up occurrence with greater SEA numbers (Chapter 5). The possibility of a successful SEA follow-up in countries with a just evolving EA culture is not excluded; however, it may bear an occasional character. Meanwhile, the ultimate ability of SEA follow-up to support strategies on the way to strategic changes in the spirit of sustainability arguably depends on the degree of its (massive) institutionalisation.

8.2.3.10 Gap between theory and practice

One of the findings of the literature analysis was that the theoretical foundations, including methodology, and actual experience of SEA follow-up were weakly developed, if not missing (e.g., Nilsson *et al.* 2009; Persson & Nilsson 2007) and the relationship between them was unclear. The survey results confirmed this presumption; namely, the majority (ca. 90%) of the respondents indicated that the SEA follow-up theory and practice and the correspondence between them were either undeveloped or only somewhat developed¹⁴⁸. What is striking is that consistency between theory and practice was reported as undeveloped by around half of the respondents. This may imply that while some methodological and theoretical frameworks for SEA follow-up are being proposed and at the same time, some ad hoc or deliberate SEA follow-up is being practised, the main issue is how to build a bridge between the existing theory and practical SEA follow-up efforts. In this light, alongside further practical and theoretical research, exploring how to harmonise the development of SEA follow-up practice and theory may be an important topic for future research (see recommendations & Chapter 9).

¹⁴⁸ At the same time, theory was considered as more developed than the state of practice and the correspondence between practice and theory. This might be due to the focus of several recent research initiatives that attempted to explore the notion of SEA follow-up and propose some basic methodologies or guidelines (e.g., Morrison-Saunders & Arts 2004; Nilsson *et al.* 2009), some in support of the SEA Directive (e.g., Barth & Fuder 2002).

8.3 Recommendations on improving SEA follow-up practice

The following recommendations are proposed to improve follow-up practice drawing upon the above synthesis of empirical and theoretical findings, the in-depth cases analysis (Chapter 6 & Appendix I), cross-case analysis of strengths, weaknesses and problems of SEA follow-up (Chapter 7), and the e-survey results (Chapter 5). The recommendations are especially relevant for SEA follow-up to transport and forest programs and spatial plans. They are divided into four groups. The first three follow the SEA follow-up framework's principle in terms of a degree of controllability by a strategy and follow-up implementer(s). The last one contains additional improving measures.

8.3.1 Context measures

The below recommendations are targeted at national, provincial or federal state governments and any administrative and territorial units with a legislative and regulatory authority or mandate. The exception is the last recommendation which is also targeted at the wider public, environmental NGOs, research networks, educational institutions, etc.

Legal provisions for SEA follow-up should be strengthened, where they exist, or introduced to provide for its systematic institutionalisation. These should not only require the preparation of monitoring, but also define in more detail the necessity for, and process of evaluation, management and communication/reporting. Correspondingly, SEA guidelines should accommodate SEA follow-up activities or strengthen/detail them, if they are already in place.

Formal responsibility: To promote the application of SEA follow-up, developers (planning authorities, crown corporations, private entrepreneurs, and so on) should be made responsible for preparing and submitting a complete SEA follow-up proposal as part of a final strategic document. They should also be obliged to consult with the relevant bodies about the scope of follow-up.

Inclusion requirements: As argued above, there is a clear need to influence SEA and the planning process to promote a better inclusion of follow-up measures (e.g., mitigation, enhancement, monitoring proposals, and other SEA recommendations). This could be done by formally requiring the strategy proponents to demonstrate their decision-making criteria and process regarding which of the proposed SEA follow-up measures were included/not included

in strategy implementation and follow-up and why¹⁴⁹. In this way decision-making authorities and stakeholders can be clear about which follow-up measures are considered as not bringing added-values to delivery, learning, etc.

Approval conditions encompassing SEA follow-up details can be useful not only for program-level developments in the private sector, but also for public sector plans or programs. By issuing them, a better case can be made for enforcement and rendering the strategy proponents accountable. Approval conditions at strategic level should have a relevant focus and level of detail. Where approval conditions are to become an accepted practice for SEA follow-up and strategies, a legal provision may be needed to legalise their *delivery* rather than just the preparation.

Incentive/award systems: in some countries, e.g., in the UK, incentive-based approaches such as awards for various achievements during the delivery of strategies or additional funding for high-quality strategies are successfully used. A provincially-, nationally-, or regionally-steered incentive-based system should be extended to cover SEA follow-up implementation as part of strategies. This would increase motivation for, and commitment to SEA follow-up among its proponents.

Existing monitoring: While national-, provincial-, or regional-level monitoring has its own priorities, consultations should be held with various planning levels and key industrial proponents operating mid- to long-term strategies regarding the creation of new or updating old databases, the installation of or upgrading facilities, etc. Vertical and horizontal cooperation across authorities should be encouraged to allow them to harmonise monitoring and evaluation practices.

Strengthening environmental follow-up is needed as the environmental component of SEA follow-up was found to be least considered in the final follow-up and strategy design. This does not mean that SEA follow-up should focus only on the environment, ignoring socio-economic, health or other aspects, as this would be a step back in terms of the ‘strategicness’ of SEA. However, the position of the environmental component needs to be strengthened through either the above proposed inclusion requirements or an incentive system (e.g., based on the ‘green’ reputation of the strategy and proponents). The SEA follow-up and strategy

¹⁴⁹ There is a risk that by providing their SEA consultants/developers with these criteria in advance, the strategy proponents may make them avoid proposing the measures that anyway would not be transferred to the strategy delivery. However, it is believed that professionalism of SEA consultants/developers will prevent this from happening.

proponents should also be encouraged to develop consultations with stakeholders, opinion surveys and other forms of public involvement to cover not only strategy (non)delivery facts, but also environmental follow-up related issues. This would not only contribute to a greater public environmental awareness (to recall, applying SEA follow-up has the potential to change public attitudes, awareness and perceptions and thus increase motivation and commitment to follow-up), but also ensure that the environment is treated in the same way as other aspects.

Formal system's adaptiveness: Formal opportunities to respond to significant changes identified in strategies or the environment through SEA follow-up and strategy performance should be provided beyond 'revisions'. This will support the so-far scarce examples of active commitment and management able to influence the quality and feasibility of response and open up opportunities for other SEA follow-up proponents to learn from existing lessons and improve their practice.

Public enforcement: In addition to the above-mentioned public-related facets, stimulating public interest in, and awareness about, the environment can create an opportunity for public-driven follow-up and enforcement. This could be realised through announcements, booklets, leaflets, seminars, trainings, etc. targeted not only at the wider public, but also at selected groups such as various organisations, industry, local authorities/public services. This measure may require (sector-specific) efforts of environmental authorities, think-tanks, NGOs, etc.

8.3.2 Structural measures

The below recommendations relate to the structural dimension of the SEA follow-up framework and can be partially influenced by the implementing institutions. Thus, these recommendations are directed towards the proponents, authorities and stakeholders involved in the SEA follow-up and strategy planning and delivery processes.

Merging with EMS and Environmental Audits: In some of the examined cases the proponents, especially the private sector and regulators, looked into the possibilities to integrate SEA follow-up and strategy performance management with ongoing/emerging EMS or periodical Environmental Audits. Schemes to do this were under development at the time of field research for this study, however some lessons can be shared and such possibilities can be considered in future SEA follow-up practice. For instance, where SEA follow-up envisions monitoring of activities beyond a strategy but related to its delivery (similar to Type C) or of actual changes in the broader environmental, socio-economic, and institutional context

relevant to a strategy (similar to Type A3, Chapter 2), SEA follow-up can benefit from or transfer its particular function(s) to the organisation-wide EMS or environmental Audits (the latter can be part of EMS or independent). SEA follow-up should identify whether/which follow-up indicators and actions fit into corporate monitoring frameworks to utilise this broader information source for its own evaluation and management purposes, as needed.

Internal environmental policies and planning principles prove to be important for SEA follow-up as they trigger its planning and implementation even in the absence of legal requirements. Thus, organisations with planning and implementation mandates whose initiatives are subject to SEA (on a regular basis) are recommended to integrate provisions for follow-up activities in their internal environmental (assessment) and planning policies in accordance with their organisational procedures. This will provide for a better tailoring of follow-up principles and enabling factors to an organisation's structural particularities, management practices and organisational climate.

Capacity-building: The importance of and need for capacity-building for SEA follow-up seem to increase as planning levels decrease. Training for follow-up is less relevant in higher-level strategies embracing a number of plans, programs, and concrete actions; whereas the demand for it is more evident in programs or plans with area- or sector-specific projects, where SEA follow-up/strategy proponents should also be able to control and manage the delivery activities of lower-level initiatives. The problem with capacity-building for SEA follow-up is that proponents rarely assume that additional skills are needed (the skills that supplement the usual planning and delivery expertise). The top management of organisations/authorities should, therefore, encourage their staff to acquire training in designing and implementing SEA follow-up. This will increase environmental awareness and commitment to follow-up, and help develop evaluative and managerial competence. Given the usual resource constraints, training might be related not to a particular follow-up scheme, but to sector-, scale-, or type-specific monitoring and evaluation and follow-up activities in general.

Knowledge management and organisational memory should be addressed by the proponents wishing to effectively practise SEA follow-up. Devising methods for information and knowledge management can enable the proponents to continuously learn from the past experience and adapt to changes. Organisation should envision the ways to preserve experiences, skills, and know-how and promote a continuous and effective use of information from SEA follow-up over the years. SEA follow-up knowledge should be made usable for the next planning cycles and maybe similar initiatives, which implies not only promoting

organisational memory and continuity of experience (and to a reasonable extent, a continuity of staff), but also making information on follow-up accessible to those interested in it.

Funding: SEA follow-up should be formed as part of strategy delivery and performance management, rather than a marginal add-on to it. This way follow-up can be properly positioned in investment programs among the corresponding monitoring, communication, development and research, cooperation, etc. activities envisioned by a strategy. Internal integration plays an important role here as it enables the strategy proponents to envision, require or justify funding for SEA follow-up.

8.3.3 Process measures

The recommendations below concern the process of SEA follow-up and are for the immediate actors in the SEA follow-up- and strategy-making and delivery process, i.e. those who are in a position to directly influence it.

Orienting SEA follow-up within a strategy requires a careful consideration at the outset of the scoping and transferring process. A contents-oriented approach to SEA follow-up seems to be ineffective if it is not combined with other approaches. Namely, a balance should be struck between proposing content for SEA follow-up and focusing follow-up on strategy's actual impacts, objectives, and context. Effective SEA follow-up thinking and planning should also concentrate on the *process* of a strategy given its particularities, uncertainties, and risk and on the *outcomes*, it may have on a strategy's delivery.

SEA follow-up scoping was found to be a crucial part of the follow-up design process. To render it effective, it should be understood as a deliberate, iterative, and somewhat 'rationalistic' element of follow-up. When scoping for SEA follow-up, the developers should be aware of the potential inability of SEA to consider all environmental and socio-economic ramifications and should propose a response possibility. Scoping should be conducted in several steps prior to the consent decision and take advantage of consultations arranged for SEA reports and draft strategies by obtaining insights on follow-up issues and design.

Another round of scoping towards interior integration deserves special attention, as during it the strategy proponents decide on the scope of SEA follow-up activities and the ways they can be efficiently integrated with a strategy (see above). SEA developers or responsible in-house SEA officers should be able to identify these decision moments, which usually occur at several points during the SEA and planning process and then once SEA is completed in order to ensure that SEA follow-up measures and their added values were

understood and considered and that the environmental component was not overlooked. This measure would also contribute to a better understanding of SEA follow-up rationales and goals. If resources permit, rejected or questioned SEA follow-up measures should be reviewed to find alternatives. The decision-making process should be documented and submitted to the relevant authority alongside the final strategy in line with the above proposed formal 'inclusion' requirements (see context measures).

Monitoring, evaluation, and management mandates for SEA follow-up should be outlined in the final strategy or other relevant documents, so that to increase the effectiveness of staff and minimise duplication of work. A greater focus should be made on the importance of evaluative judgments for a strategy delivery and overall learning process during SEA follow-up. Whether any additional evaluation approaches, methods or expertise are required for the proposed follow-up monitoring should be made clear and be included in strategies' evaluation (review) procedures.

Coherence: the research proves that whilst the need to design follow-up activities in a mutually consistent way is practically recognised, inconsistencies often occur. In this light, specific consideration should be given to the coherence between the SEA follow-up activities at three design moments: 1) during the SEA and planning process, 2) when integrating the proposed SEA follow-up activities with existing monitoring systems, and 3) when integrating SEA follow-up activities into a strategy. When managerial practice modifies a strategy and its follow-up during their implementation, the relevant follow-up activities and parts of a strategy should be reviewed to eliminate inconsistencies. Failure to do this can result in senseless monitoring or evaluation, i.e. inefficient SEA follow-up.

Data storage/format: The effectiveness of SEA follow-up for plans/programs with direct implementation actions suffers from incompatibility of data collection, storage and processing formats used by stakeholders. The SEA follow-up and strategy implementers are usually aware of this problem; however, they often postpone addressing it until revision or reporting time when it is too late or too resource-consuming to standardise the data. Consensus-building exercises involving private sub-contractors (delivering the actions and/or collecting data), neighbouring authorities, regulators, external consultants (storing, compiling, evaluating data) and other relevant actors should be conducted during SEA follow-up planning and each time a new partner is about to be engaged in a strategy delivery.

Responsiveness: To (effectively) operationalise a response function of SEA follow-up and a strategy a threefold approach should be taken. It includes 1) establishing adaptive conditions

in the wider planning and SEA system as advised above (see context measures) or within the organisational structure, 2) designing adaptive management elements in SEA follow-up and strategy monitoring schemes to allow them to capture and react to (emergent/deliberate) changes, and 3) assigning management responsibilities to people with the necessary authority and competence to both take routine adaptive decisions and decide on the significance of emergent changes in SEA follow-up/strategy to make a case for a relevant response.

8.3.4 Other recommendations

Corporate and environmental benefits of SEA follow-up, such as continuous improvement of environmental performance/management practices, increased environmental awareness, attainment of stakeholders' environmental expectations, improved corporate image and public relations, favourable publicity, should be promoted by SEA practitioners and considered by follow-up implementers on a par with other benefits. This will provide for an additional practical rationale in favour of SEA follow-up and open up further scope for its development.

Dissemination and research of practical SEA follow-up experience should be stimulated to allow its potential/actual users to learn from and advance their follow-up practice at all levels of SEA application.

Theory and practice: Efforts should be made to advance both practical and theoretical SEA follow-up research and to harmonise their development and thereby move towards bridging the gap between SEA follow-up theory and practice.

Public participation in SEA follow-up during the periodic meetings, consultations for annual revisions, opinion surveys, etc. should be encouraged by the public/stakeholders themselves. It is in their best interests to be aware of follow-up and strategy issues identified in the course of implementation. It is through their increased interest and conscious participation that (local) political support and organisational commitment to follow-up can be enhanced.

8.4 Summary

The research findings have illustrated relationships involving not only the theory-based SEA follow-up framework elements, but also other emerging factors and themes. The five causal sub-flowcharts have revolved around those structural variables that have been found to exert most influence on SEA follow-up; follow-up management; linkages between commitment, resources for follow-up and other SEA follow-up components; the relationship between the environmental component of SEA follow-up and the public position; and the attitude to SEA that affects commitment to follow-up and ultimately its performance. This was followed by

the messages for advancing the understanding of SEA follow-up, which were derived and discussed in the course of synthesising the theoretical and empirical findings with reference to the relevant theory input. They covered the process, structural and cross-cutting issues and dealt with such aspects as triggers of SEA follow-up, its proper orientation and various forms of scoping, gaps in practicing the core SEA follow-up activities, conditions for better responsiveness, types of networks, and learning forms to be encouraged. Then, the four sets of recommendations were proposed to strengthen and improve the SEA follow-up application. They contained improvement measures related to the context, structure and process of SEA follow-up as well as other measures.

The results of this Chapter are the final ingredient to be included in the last Chapter 9, which summarises the research, demonstrates its contribution and suggests areas for further research.

CHAPTER 9: CONCLUSIONS

This Chapter draws conclusions from the whole research. It reproduces the research aim, objectives and question and presents the key findings as per the three objectives. It then draws an overarching conclusion, demonstrates the original contribution of this research, and concludes with suggestions for further research.

9.1 Aim and objectives

The main literature analysis-based assumption of this research was that SEA follow-up is able to increase the long-term effectiveness of SEA - by integrating environmental and sustainability concerns along the lifecycle of strategic initiatives - and thereby foster a desired transition to sustainability. However, despite the well-argued importance of and need for SEA follow-up, very limited theoretical research and even less practical experience was published to learn from. The overarching question formulated in Chapter 1 is whether SEA follow-up is feasible and relevant and, if so, in what kind of forms and under what kind of conditions can it be effective and useful? Consequently, the aim of the research was to propose and test a framework for examining, evaluating, and explaining the current practice of SEA follow-up and its potential to facilitate more sustainable implementation of strategies, based on selected case studies. To attain it three Objectives with tasks were as follows (see Chapter 1):

Objective 1. Examine the history, evolution and current status of SEA follow-up discourse and practice

- Task 1
- a) Discuss the evolution of SEA theory and practice relevant to the emergence of SEA follow-up
 - b) Examine the current SEA follow-up discourse and practice and formulate/identify the assumptions of the state-of-the-art SEA follow-up

Objective 2. Conceptualise SEA follow-up and propose an evaluative and explanatory SEA follow-up framework

- Task 2
- a) Analyse 1b) with reference to the contemporary SEA debate and other related theories
 - b) Based on 2a) propose an evaluative and explanatory framework for successful SEA follow-up and suggest variables to enable its empirical testing

Objective 3. Test and validate the SEA follow-up framework and draw recommendations

- Task 3
- a) Examine in detail the application of SEA follow-up during the implementation of several strategic initiatives as per the framework developed in 2b)
 - b) Identify and analyse strengths and weaknesses, similarities and differences, problems and benefits of SEA follow-up across cases
 - c) Validate the findings of 3b) by synthesising them with the survey results and theoretical findings
 - d) Develop recommendations for improving the application of SEA follow-up based on 3b) and 3c)
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The next paragraphs summarise the findings and achievements according to each Objective.

9.1.1 Objective 1. Examine the history, evolution and current status of SEA follow-up discourse and practice

Chapter 2 discussed the evolution of SEA theory and practice relevant to the emergence of SEA follow-up (**Task 1a**). It analysed the assumptions, rationales, tensions, trends, debates, and milestones of the current SEA discourse from the viewpoint of the relevance to and influence they exert on SEA follow-up. For example, such aspects were examined as how the sustainability concept fuelled the spread of SEA simultaneously triggering debates about its ability to support 'strategic changes', how SEA monitoring started gaining more attention at the junction of the formalisation and extension stages of SEA, and how SEA operating on the convergence of various disciplines is being 'fertilised' by them.

Three clusters of theories and concepts that have notably enriched SEA discourse over the years were identified, i.e., the concepts and theories of 1) policy- and decision-making, policy analysis, and planning, 2) strategy formation and 3) learning and knowledge management. The key messages from them were derived for SEA, referring to e.g., the rationalistic decision-making assumptions in SEA, the applicability of various decision-making concepts to SEA, the importance of contextual sensitivity and awareness of uncertainties, the relevance of formal vs. informal strategy-making and emergent vs. deliberate strategy implementation to the current SEA thinking, and the importance of such forms of learning and knowledge management as 'daily', technical, social or instrumental learning, and organisational memory. Reviewing the messages in terms of their potential utility for SEA follow-up opened up the possibilities for a careful cross-fertilisation when exploring and conceptualising SEA follow-up and explaining some of its aspects and processes (Chapters 4 & 8).

Then, given the believed importance of SEA follow-up for the efficacy of SEA, frameworks for evaluating the SEA effectiveness with their assumptions, principles, or criteria were examined. Despite their wide scope, a serious theoretical and practical omission was identified in that follow-up to SEA had virtually been ignored in SEA effectiveness research.

Based on the existing SEA literature, Chapter 2 (**Task 1b**) found that in its current state, SEA follow-up is largely neglected due to the focus of SEA on ex-ante assessment, SEA's rationalistic assumptions that by influencing a particular strategy all subsequent actions will be influenced as well, the specifics of implementation that might not leave space for a formal SEA follow-up, and the absence of a vision of the usefulness of SEA follow-up. It also looked into the purposes, rationales, possible challenges, and promise of SEA follow-up and found that these mostly relate to greater uncertainties at strategic levels, the higher chance of

unpredicted circumstances and deviations during implementation, the emerging belief that new approaches are needed to reinforce SEA and increase its long-term effectiveness, and a need to learn how to track and manage the transition to sustainability.

Chapter 2 tracked the isomorphism of SEA follow-up from EIA follow-up and by drawing a parallel between them concluded that SEA follow-up is far behind its precursor in terms of methodological and theoretical foundations, empirical research and practical implementation. Then, the examination of the core SEA follow-up activities - screening, scoping, monitoring, evaluation, management, and communication - suggested that some of them are better developed, e.g., monitoring, others are mentioned in the literature but lack methodological grounds, e.g., evaluation, and the others are hardly addressed, e.g., management. To finalise the background picture, the few existing frameworks proposed to explore some elements of SEA follow-up were reviewed pointing to a limited and unsystematic inquiry into follow-up. Drawing on this, a set of SEA follow-up assumptions - covering its potential contents and procedural activities, links between the activities, possible ways of integration with a strategy, etc.- was formulated to facilitate follow-up's conceptualisation and serve as the baseline, with which the empirical findings could be compared, as applicable (Chapter 8, to some extent Chapters 5 & 7).

A two-round electronic survey was designed and conducted to examine the current state of SEA follow-up practice, thereby supplementing Objective 1. Some of the key survey's findings were an unexpectedly high rate of *envisioning* SEA follow-up cases, namely 30-60%, envisioning of some SEA follow-up activities not only in developed but also in developing countries, a positive correlation between the number of SEAs and that of SEA follow-up, and a weak-to-no-correlation between the *envisioned* and *implemented* SEA follow-up activities reported by 44 respondents from 33 countries (Chapter 5). The findings of the survey analysis were synthesised with other empirical and theoretical findings to validate some elements of the proposed SEA follow-up framework and inform the research messages (see Objective 3).

9.1.2 Objective 2. Conceptualise SEA follow-up and propose an evaluative and explanatory SEA follow-up framework

At the outset of conceptualising SEA follow-up, the challenge of setting the boundaries for SEA follow-up was faced given the potential relevance of various theoretical perspectives to it in the virtual absence of research (Chapter 4). The challenge was approached from two ends. First, the concepts that migrated from the theories to SEA discourse (see above) were projected onto the current understanding of SEA follow-up and elaborated further to link it

with the issues and notions in the modern SEA thinking. Second, to advance the SEA follow-up understanding the theories were approached from the specific ‘follow-up’ perspective focusing the discussion on the ‘*post-formulation*’ elements and concepts of the theories; e.g., decision and policy-making issues of implementation; program/strategy management, control, and evaluation, strategic and organisational change; learning and behaviour of strategies.

Then, an SEA follow-up evaluative and explanatory framework was conceptualised, with three broad dimensions based on the extent of controllability by a strategy:

- ‘process’ of SEA follow-up includes elements and enabling processes that are of immediate importance to SEA follow-up and are controlled by it, e.g., design/implementation of monitoring, evaluation, reporting;
- ‘structure’ of SEA follow-up is where its process unfolds; it stands for certain societal and organisational elements and processes that perform according to the established practices and affect the success of SEA follow-up while being partly exposed to its influence; and
- ‘context’ of SEA follow-up stands for the larger setting where a PPP and the process and structure of SEA follow-up evolve; it embraces existing planning, institutional, socio-political, etc. forms and processes that affect SEA follow-up but cannot be controlled by it.

Chapter 4 specified the principal conceptual constituents for each of the three dimensions of the SEA follow-up framework by analysing the assumptions and components of SEA follow-up in the context of the three clusters of theories and SEA discourse, based on the above approach (**Task 2a**). Following this, the conceptual constituents were translated into empirically testable variables (elements of the SEA follow-up framework) (**Task 2b**). The translation was guided by a set of principles related to the specific nature of SEA follow-up, e.g., the consideration of the best practice SEA and EIA follow-up, the results of SEA evaluation studies and EIA follow-up analyses (Chapter 4). Proposing the variables was an iterative process, in the course of which those variables that appeared to be unsuitable or of minor importance to the explored SEA follow-up practices were abandoned or changed (Chapter 3).

The final proposed framework included important elements of the SEA follow-up process, structure, and context such as design and delivery of SEA follow-up activities and their integration with a strategy, stakeholder cooperation, mutual adaptability of a strategy and follow-up; organisational commitment, acceptance of follow-up roles and accountability, transparency and resources for follow-up; existing planning and policy-making practice, formal provisions, and integration with existing monitoring systems. The variables were not

articulated in strictly normative terms; rather they conveyed the essence of the theoretical concepts, reflected the potentially favourable preconditions for SEA follow-up and were broad enough to capture and uptake other recurrently emerging themes from practice. Each variable addressed a number of interlinked questions intended to facilitate the empirical SEA follow-up investigation. The context variables allowed for judging as to whether they existed in practice and, if they did, then to what extent; process and structural variables were formulated so that to enable their examination in terms of whether they existed in practice and, if so, to what extent they were *designed* and *implemented*.

9.1.3 Objective 3. Test and validate the SEA follow-up framework and draw recommendations

To examine the application of SEA follow-up in practice (**Task 3a**) several case studies had to be selected. Despite a high rate of *envisioning* SEA follow-up found through the e-survey, the identification of *researchable* cases appeared to be problematic. A 9-month long search for cases resulted in the identification of 11 potential cases in 8 countries. Some of them had to be excluded due to language, data access and other problems. Several cases were selected based on such criteria as the existence of SEA and provisions for some follow-up, a relative maturity of a strategy, the existence of implementation activities, different scales, sectors or locations. Some cases had to be changed during the field trips; which, however, did not disrupt the research as it was devised to be flexible (Chapter 3). Finally, six cases (four in the UK and two in Canada) were examined in-depth according to the proposed SEA follow-up framework variables based on interviews, consultations and document analysis¹⁵⁰. The performance of each variable was graded in term of its state/existence or double-graded in terms of its design and implementation (for grading, decision-making guidelines, ranking, and calculation rules see Chapter 3).

Chapter 7 analysed the overall SEA follow-up performance across cases (**Task 3b**). By developing the case-ordered construct, it revealed that while all six cases demonstrated rather favourable conditions for and good performance of SEA follow-up practice, the Merseyside transport strategy performed better than other cases and was followed by the Blackburn with

¹⁵⁰ For the summary of the case analyses see Chapter 6; for the detailed within-case analysis see Appendix I; for interview procedures see Chapter 3; for a sample case protocol, interview questions, and list of interviewees see Appendix E, Appendix F & Appendix D respectively).

Darwen LTP, FMP, Lancashire and Blackpool LTPs, and CASP¹⁵¹. To explain this overall case performance Chapter 7 lowered the analysis level and patterned and contrasted the performance of the SEA follow-up dimensions across cases. The comparisons showed that the performance of the SEA follow-up process mostly determined, and changed in the same way as, the overall cases' performance. The context dimension of the four UK cases revealed a similarly good state of development, whilst that of the two Canadian cases was weaker mostly because of deficient formal provisions. In contrast, the Canadian cases dominated over the UK ones in terms of the performance of the structural SEA follow-up elements, largely due to a traditionally greater attention paid to structural elements in Canadian organisational culture.

As a next step towards **Task 3b**, Chapter 7 examined associations between the performance of *design* and *implementation* elements of the process and structure of SEA follow-up. The analysis revealed that the Merseyside and Blackburn with Darwen LTPs were the only cases with a better elaborated follow-up design and weaker implemented follow-up. Moreover, the elements of the SEA follow-up structure were designed less coherently, in less detail, while they were actually delivered to a larger degree in all six cases. The design component of the SEA follow-up process performed stronger across cases than that of the follow-up structure (apart from the CASP). Overall, the design component performed weaker than the implementation one. The analysis concluded that it was mostly the extent to which SEA follow-up was implemented that determined a better performance of its structure and process.

Further, Chapter 7 identified and discussed similarities versus differences and strengths versus weaknesses in the performance of the SEA follow-up variables. The four UK LTPs shared similar features/development stage for all context SEA follow-up variables, except for 'exterior integration'. In contrast, the two Canadian strategies had distinct performance in around half of the context conditions. The cross-case comparisons demonstrated that the performance of the six cases differed significantly and moderately for most process and structural variables.

The consistency tests between the identified monitoring, evaluation and management showed that whilst most strategies revealed consistency between evaluation and management SEA follow-up components, some strategies tended to practise those evaluation forms, for which monitoring was not considered, and vice versa. Examining the roots of inconsistencies

¹⁵¹ To recall, LTP stands for Local Transport Plan, the FMP stands for Forest Management Plan (Canada) and the CASP stands for Core Area Sector Plan (Ottawa-Gatineau, Canada).

pointed to a partial relevance of some theoretically delineated relationships between the follow-up elements to practice, especially in terms of management (Chapter 7, Point 7.4).

With respect to strengths and weaknesses, the analysis in Chapter 7 showed two similar context strengths across cases- the compliance with sustainability principles and the ability of planning systems to incorporate SEA follow-up results in future planning. The common weaknesses were the merely satisfactory enforcement and insufficient or absent exterior integration. In the process dimension, strengths and weaknesses were diverse: out of around 30 identified themes, the cases shared one strength only- adaptability of strategies to feedback from subsequent decision-making. The structural strengths and weaknesses were also diverse (with especially numerous weaknesses): out of around 15 discerned themes, the only common one was weak/vague links between a certain SEA follow-up and that of the related strategies.

Against this background, problems and benefits of SEA follow-up were identified and analysed to finalise **Task 3b**. Problems of SEA follow-up were ascertained across cases, clustered according to the framework dimensions, and discussed in the following categories: formal provisions, integration of follow-up with existing systems, follow-up goals & rationales, core SEA follow-up activities, integration of follow-up with a strategy, cooperation, adaptability of follow-up & strategy, ownership, accountability & commitment, understanding, interest & support, follow-up position, resources, and capacity-building. The most significant barriers related to exterior integration, SEA follow-up activities, ownership & commitment, adaptability and resources. The perceived benefits of SEA follow-up were then identified and discussed in the following categories: management & goal-achievement, environmental protection, networking & cooperation, learning & information, and corporate benefits. The most significant benefits concerned management, cooperation, and learning.

Chapter 8 accomplished **Task 3c**: validate the findings of the case analyses by synthesising them with the theoretical and e-survey's findings. To do this, it drew together the key findings of the e-survey and cross-case analyses and examined and interpreted them in relation to the theoretical findings, current understanding of SEA follow-up, SEA debate, and a wider theory context. It first focused on revealing and discussing recurrent and important linkages between the elements of the SEA follow-up framework and found that *the relations involved not only*

*the theory-based framework elements, but also other intervening factors that emerged as vital for follow-up practice*¹⁵². The constructed causal sub-flowcharts revolved around:

- links between distinct levels of commitment, understanding of follow-up goals, resources for follow-up, and the design and implementation of the core SEA follow-up activities (two constructed situations stressed the central role of a person/community in follow-up);
- those structural variables that were found to exert most influence on the SEA follow-up process design and delivery and learning processes;
- various forms of management in the SEA follow-up process (they were found to be performing as a complex exposed to contextual and structural preconditions to a larger degree than other core follow-up activities);
- the extent to which the environmental component of SEA follow-up depends on the interplay of the public interest in SEA and follow-up and environmental awareness, integration of SEA and planning, local political and proponent's corporate/personal commitment to follow-up; and the resulting transparency for follow-up; and
- the variations in performance of SEA follow-up depending on the (negative, indifferent, positive) attitudes to SEA and the resulting active or passive forms of inter- and intra-organisational commitment to follow-up.

Chapter 8 derived the key messages of this research to advance the current understanding of SEA follow-up. They focused on the SEA follow-up process and structure, using the same controllability principle as the framework, and on the cross-cutting issues going across dimensions. Most significantly, the process messages point to the need to orientate SEA follow-up within a strategy so that to strike a balance between the content of follow-up and its focus on strategy's actual impacts, objectives, process, context, and/or outcomes. In this light, they stress the critical importance of scoping, which, according to practice, occurs *during the (initial) strategy planning and SEA scoping and once SEA's evaluation is available*. Another vital message concerns 'transforming' SEA follow-up into a part of a strategy, which involves another round of screening and scoping, but entirely from the proponents' perspective. Understanding this process is crucial in order to influence it; otherwise, some vital follow-up

¹⁵² The within-case, cross-case and synthesis analyses proved that the proposed SEA follow-up framework did allow the elements that were beyond its boundaries but appeared to be important for the SEA follow-up practice to be captured and accommodated. Thereby, this research accomplished one of its intentions, i.e. to propose a flexible evaluative and explanatory SEA follow-up applicable to various contexts (see Chapters 3 & 4).

elements may be omitted without justification, even in integrated SEA-planning modes. The lessons show that such ‘omissions’ frequently occur relative to the *environmental component*, which is often ‘lost’ during the integration of SEA follow-up into a strategy.

The structural messages emphasise the importance of shared accountability and ownership forms for follow-up. They argue that the problem of ‘diffused’ responsibilities at strategic levels is prevented when the proponents consider responsibility for follow-up as part of their routine organisational climate and procedures. They contend that within the organisational climate and structure, a number of networks can be identified, of which three types are central to SEA follow-up: emergency networks, coordinated networks, and amorphous networks (Chapter 8, Point 8.2.2.2).

Some cross-cutting messages indicate the areas with the potential for promoting SEA follow-up. Namely, they argue that while legal provisions are still the key trigger of follow-up, in their absence follow-up is successfully initiated by ‘soft’ provisions, organisational planning principles and environmental policies, case-specific needs or ad-hoc agreements between the stakeholders. They further contend that the identified perceived outcomes of SEA follow-up, especially the largely overlooked environmental and corporate benefits, strengthen the rationale for follow-up, provide additional practical arguments in its favour, and make it more attractive to its possible users. Other cross-cutting messages focus on improving the follow-up practice; e.g., they infer that effective responsiveness of SEA follow-up/strategy is a function of three key variables, i.e. response mechanisms (in the context or structure of SEA follow-up); such follow-up and strategy monitoring schemes that allow changes to be captured; and people with competence and authority to decide on both deliberate and emergent responses. The messages also stress that responsiveness and ability of SEA follow-up to address non-linearity, dynamics, and uncertainty can develop if its *design* envisions some adaptive elements, and that it is mainly the adaptive *formational* process of SEA follow-up that determines its good performance. At the same time, SEA follow-up design has to draw on rationalistic assumptions to be formally relevant and validated by inclusion in strategy performance and organisational structure. Finally, the messages call for greater attention to: a) the important role that an individual or community plays *within the stakeholder parties* in instigating or improving SEA follow-up and thus making instrumental changes to its structure and process, b) the largely overlooked learning *for* SEA follow-up; c) the need to convert the identified forms of organisational and individual learning from *unintended* to *expected* effects of follow-up implementation; d) a slowly growing recognition of the need for ‘some’ SEA

follow-up both in developed and developing countries (envisioning and implementing at least some SEA follow-up activities seems to be not that rare as it is believed); and e) a gap between follow-up theory and practice and a need to bridge it (Chapter 8, Point 8.2.3).

Building on the previous analysis and discussion Chapter 8 developed recommendations on improving the application of SEA follow-up (**Task 3d**). They comprise measures related to the context, structure, and process as per the framework controllability principle as well as other improving measures, and are divided into the first and second priority measures (**Table 9-1**).

Table 9-1 Recommendations on improving the SEA follow-up application

First priority	Second priority
Context recommendations	
Legal provisions for SEA follow-up should be strengthened or introduced and SEA guidelines should respectively accommodate and/or detail follow-up	Provisions for approval conditions with SEA follow-up details of a needed focus and level of detail should be formally promoted in the relevant sectors and initiatives
SEA and planning process should be influenced to encourage the inclusion of follow-up measures (strategy proponents could be formally required to demonstrate their decision-making process for (ex)including the proposed follow-up measures in the strategy)	An incentive- or award-based system should be established or extended to cover SEA follow-up implementation as part of strategies
Various planning levels and relevant industrial proponents should be consulted about the creation (updating) monitoring systems (vertical and horizontal cooperation across authorities should be encouraged to harmonise monitoring/evaluation practices)	SEA follow-up/strategy proponents should be encouraged to involve the stakeholders in environmental follow-up (if applicable)
The environmental component of SEA follow-up should be strengthened	Opportunities for public-driven follow-up and public enforcement should be created
A possibility to respond to significant changes in strategies or the environment identified through SEA follow-up/strategy delivery should be formally provided for (beyond 'revisions')	
Structural recommendations	
SEA follow-up should identify whether and which of its indicators or actions fit into corporate monitoring frameworks, EMS or environmental audits to delegate functions or utilise broader information	Proponents should consider maintaining knowledge management and organisational memory
Proponents with a regular SEA practice are recommended to integrate provisions for follow-up in their internal EA policies and planning principles	Capacity-building for SEA follow-up should be considered were relevant (proponents should encourage the staff to acquire general training in monitoring, evaluation and other follow-up activities)
SEA follow-up should be positioned in investment programs as part of a strategy	
Process recommendations	
SEA follow-up should be oriented towards a needed combination of follow-up contents, strategy's actual impacts, objectives, process, outcomes or context during scoping	Scoping should obtain insights on follow-up issues and design from consultations on SEA reports and/or draft strategies
SEA follow-up scoping should be understood as an iterative, selective, and deliberate process, proposing an adaptive response possibility	
Decision moments when proponents decide on the scope and integration of SEA follow-up should be identified to ensure its	

First priority	Second priority
measures and benefits are understood and considered and the environmental component is not overlooked	
SEA follow-up should outline monitoring, evaluation, and management mandates (the importance of evaluation should be emphasised and it should be made clear if any additional evaluation approaches, methods or expertise are needed)	
Coherence between the SEA follow-up activities should be strengthened	
Other recommendations	
Corporate and environmental benefits of SEA follow-up should be considered and promoted	Public participation in SEA follow-up should be encouraged by the public/stakeholders themselves
SEA follow-up experience at various levels should be researched and disseminated	Both practical and theoretical SEA follow-up research should be advanced and harmonised

9.2 Overarching conclusion

The preceding theoretical and empirical analysis made it possible to revisit the overarching research question: Is SEA follow-up feasible and relevant and, if so, in what kind of forms and under what kind of conditions can it be effective and useful? By accomplishing its aim, i.e. to examine the current theory and practice of SEA follow-up, its forms, conditions and potential to facilitate more sustainable implementation of strategies, the research concluded that SEA follow-up can be feasible and relevant.

Feasibility and relevance of SEA follow-up are co-dependent and should be considered jointly¹⁵³ through such processes as orientating, screening, and SEA planners' scoping for SEA follow-up (see the respective cross-cutting and process messages with the proposed criteria, Chapter 8, Points 8.2.1 & 8.2.3). According to the research, relevance of SEA follow-up is linked with the considerations of: i) its presumed orientation, function and objectives/goals (e.g., it might not necessarily aim to follow-up only significant impacts, rather it may focus on process or subsequent actions, especially at more abstract levels), ii) the outcomes and benefits it can bring to a strategy *and* the proponent organisations, iii) the importance attached to goals or benefits (e.g., tracking actual impacts may be less important than creating a continuous learning process along the planning cycle or gaining corporate benefits). The research suggests that feasibility is related to: i) the design of SEA follow-up activities, level of detail, methods¹⁵⁴, coherence, responsiveness and ability to (internally and externally)

¹⁵³ While feasibility depends on the relevant form of SEA follow-up, its considerations can scope out some relevant elements and influence the form of SEA follow-up.

¹⁵⁴ Their 'scientific' importance may decrease with increasing planning levels.

integrate; ii) the overall organisational capacity, i.e. management, leadership, mandates, coordination, knowledge management, resources, etc.; iii) accessibility to relevant information, and iv) contextual conditions and political and organisational attitude and relevance (this is less important than other aspects, but may be a factor)¹⁵⁵.

Turning to the second part of the overarching question, the SEA follow-up framework proposed for its exploration, understanding, and evaluation can be used as a reference for considering and planning the SEA follow-up forms and conditions, as well as for improving them. By reviewing and tailoring the framework elements to a particular strategy-making and realisation process, context and organisational structure, SEA follow-up can be made useful and possibly effective. Furthermore, the vital recurrent linkages between the SEA follow-up elements and messages derived by this research indicate the areas, which deserve the special attention of SEA follow-up users. These can be deployed to make SEA follow-up (more) effective if translated into a certain contextual, organisational and process setting. Finally, the recommendations can be used by the targeted audience to create more favourable conditions for SEA follow-up within their competence.

There is still a long way before SEA follow-up is institutionalised as a process able to track and support the progression of transition to a more sustainable society and ensure it is on the right course. This research takes a step in this direction by examining the ability of SEA follow-up to benefit the sustainability-led delivery of strategies, by advancing the current theoretical and practical understanding of SEA follow-up and by providing its users with a possibility to consider upfront the benefits, challenges, forms of, and vital conditions for SEA follow-up.

¹⁵⁵ If relevance and feasibility are cross-tabulated, the following options emerge: a) *SEA follow-up is relevant*, based on the above considerations and scoped correspondingly, *and feasible* and possibly slightly re-scoped as per the above aspects. E.g., a SEA of a local transport strategy considers follow-up relevant to verify the conformance of strategy with sustainability targets, monitor mitigation, conduct e.g., target-free follow-up of performance indicators, transfer systematic follow-up knowledge to the next strategy/SEA. Feasibility scoping may overall accept this SEA follow-up proposal; but, it may find monitoring or evaluating of e.g., conformance targets or target-free indicators financially unreasonable or inappropriate for managerial use; b) *SEA follow-up is relevant* based on the above considerations and is scoped correspondingly; *however, it is considered infeasible* given the above aspects. E.g., the same SEA follow-up proposal made for a regional transport policy may be considered infeasible due to organisational constraints, issues with the level of detail, methods or availability of information; c) *SEA follow-up can be irrelevant although feasible* according to the above considerations. E.g., when a strategy is launched under the conditions that the ongoing administrative-planning reform will replace a given strategy in 1-2 years by a strategy at a given/another planning level. Given that, the conditions, scope, time horizon, objectives, and other characteristics of a new strategy will change and a short-term SEA follow-up for an old strategy can be irrelevant, though feasible; and d) *SEA follow-up is irrelevant and infeasible*.

9.3 Research contribution

The research's contribution to the existing body of knowledge about SEA follow-up and SEA is fourfold: theoretical, practical, methodological, and informative (Table 9-2).

Table 9-2 Contribution of the research

Theoretical contribution
Systematic consideration of SEA evolution, trends, and debates relevant to the emergence of SEA follow-up
Systematisation of the current professionally validated information of SEA follow-up and formulation of SEA follow-up assumptions
Development of an approach to conceptualising the state-of-the-art SEA follow-up in the context of the relevant theories and concepts
Identification and proposal of theoretical concepts and definitions for the conceptualised SEA follow-up evaluative and explanatory framework
Translation of conceptual definitions into operational variables through theoretical discourse to enable the framework's empirical testing
Specific messages for SEA follow-up theory (e.g., about forms of learning processes, network types, conditions for adaptive management)
Conclusion about relevance and feasibility of SEA follow-up under certain conditions
Practical contribution
Enhanced understanding of SEA follow-up practice for transport, forest and spatial programs and plans including forms and combinations SEA follow-up takes, conditions that influence and are influenced by SEA follow-up and strategy, outcomes and added values of SEA follow-up, its ability to integrate the environment and sustainability in strategies, weaknesses and strengths (at the individual case level can be used as recommendations), barriers to design and implementation, vital recurrent linkages and processes between SEA follow-up elements, specific messages for SEA follow-up practice (e.g., about forms of learning processes, network types, conditions for adaptive management)
Recommendations on improving SEA follow-up practice (for various parties)
Possibility to apply the proposed SEA follow-up framework as a reference tool (checklist) for planning SEA follow-up and for (self)evaluating its performance (e.g., SEA follow-up activities consistency tests)
Familiarisation with the international SEA follow-up practice through the e-survey
Methodological contribution
Designing an iterative and 'closing-the-loop' research strategy with three inter-related stages, i.e. preparatory, theoretical and empirical, that can be relevant to examine SEA follow-up practice
Devising the empirical research so that to meaningfully combine specific case studies and international e-survey, test the framework on a pilot study, allow the research 'loop' to close by synthesising the empirical and theoretical findings in a wider theory context
Detailed methodology explaining each step: literature review strategy, content analysis, case selection, translation from theory to practice, data management/analysis, decision-making process, quality assurance measures, etc.
Adaptation of an 'analytical hierarchy' to the specifics of the research strategy to study SEA follow-up
Suggestion of the SEA follow-up framework that can be used to analyse, understand, evaluate, and explain SEA follow-up and that is flexible enough to capture emerging factors/intervening themes
Suggestion of the grading and ranking system and decision-making guidelines for it (can be used for (self)evaluating SEA follow-up performance; easy to adjust to specific conditions)
Informative contribution
Basic information about SEA follow-up, its potential and importance was communicated to more than 250 people contacted during the research
Information about SEA follow-up was also spread through: three case studies reports presented at three international conferences & published in proceedings

the case-based article published in a peer-reviewed international professional journal
the case-based book chapter is under review (to be published in 2010)

Based on this research a guidance section on 'SEA follow-up' was prepared for "Rio Conventions - Core Training Manual" for Bulgaria¹⁵⁶

(Self-)Learning among the interviewees of the case studies¹⁵⁷

As a quite comprehensive work on the current SEA follow-up state this thesis can be used in educational purposes by SEA and follow-up researchers, students, and practitioners

NB: only direct contribution is considered

9.4 Avenues for future research

This study unearthed several viable directions for future research. To further the theory of SEA follow-up it may look into or draw parallels with theories and concepts, other than those considered here, depending on the research focus. E.g., future research may choose to focus on stakeholder perspectives and roles in SEA follow-up and thus consider insights from concepts of social interactions, behavioural studies, or distribution of power among the parties.

This research revealed the weakness of the environmental component in SEA follow-up. Whereas health and social issues resulting from a strategy were, as a rule, the points of greater public interest and greater corporate concern, environmental follow-up was less addressed. Therefore, further research may need to look into environmental follow-up and the ways to improve it specifically.

In line with its assumptions and design, this research examined SEA follow-up in developed countries with mature SEA systems. Thus, there is a space for future research to explore SEA follow-up, perhaps using the proposed evaluative and explanatory framework, in developed or developing countries with moderately developed or recently established SEA systems.

This research identified a gap between the SEA theory and practice and, thus, one of its recommendations was to advance and harmonise practical and theoretical SEA follow-up research and to specifically attempt to bridge the gap between them.

Comparative research of a wider scope and likely less in-depth to allow for a greater transferability will be useful to systematically explore links between the extent to which SEA follow-up results in the expected outcomes in various cases or to explore if and how the expected and actual benefits of follow-up depend on the type, level, sector or other features of PPPs.

¹⁵⁶ In Antypas, A., Peev, P. & Medarova-Bergstrom, K. *Rio Conventions-Core Training Manual*. "Integrating Global Environmental Issues into Bulgaria's Regional Development Process" UNDP/GEF, CEU: Budapest

¹⁵⁷ Many interviewees contended that a) prior to the interviews they thought about SEA follow-up and considered the concepts shared with them in the interview request letters, b) during the interviews they were given an opportunity to think about, and better understand SEA follow-up, its utility and capacity and c) in group interviews they learnt about some practical aspects of SEA follow-up from each other.

Finally, the research found that the level and type of strategic initiatives affect the form of SEA follow-up, especially the choice of monitoring and evaluation types. Since the scope of the research was limited to urban and urban-rural transport planning and rural and urban-industrial spatial and land-use planning due to resource limitations, a logical step for further research would be to systematically explore the dependence and utility of SEA follow-up forms on/for strategies of various sectors, types or levels.

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APPENDICES

APPENDIX A CHRONOLOGY OF SEA DEVELOPMENT AND TRENDS (OVER ABOUT 1970-2005)

Source: Adapted from (Fischer & Seaton 2002)	Source: Adapted from (Sadler 2005a)
Prior to the mid 1980s: period before the use of the term SEA – when large scale problems arose (global ‘oil crisis’ at the end of 1960s) and it was acknowledged that the environment resources might be depleted and thus limits to human action were needed.	Formative stage (1970-1988) — when the legal and policy precedents for SEA were first established primarily in the USA at the federal level. The EIA systems were adopted by many countries included only occasional application of EA to policy or to plans/programs until the introduction of the Netherlands EIA Act (1987).
Second half of the 1980s: the appearance of the term SEA – when SEA was perceived as an extension of project EIA applied to PPP mainly in spatial and land-use planning.	
Beginning of the 1990s: SEA as an instrument for decision-making for sustainable development – when sustainability became a popular guiding principle in politics and planning worldwide, particularly following the publication of the Brundtland Report (1987). The advent of two schools: for integrated approaches and for pure environmental considerations in policy-making.	Formalisation stage (1989 to 2000) — SEA was instituted by an increasing number of countries and international organisations (Canada 1990, WB 1989, Espoo Convention 1991 Article 2(7)). During this phase, however, SEA systems became increasingly diversified in provision, scope and mode of application.
The mid 1990s: broadening understanding of SEA and ‘inflation’ of terminology - the term SEA was used in an interchangeable manner for a wide range of various kinds of assessments, from policy assessment for complex multi-sectoral systems to the assessment of large projects and higher levels initiatives. Confusion about the term “SEA” grows.	
Second half of the 1990s: collection of SEA case studies- when all kinds of cases were described however not being systematically compared and evaluated, that has added to the confusion.	Expansion stage (2001 onward) – A new generation of international legal instruments promise have positioned SEA for wider adoption and use, particularly in relation to plans and programs (the SEA Directive and SEA Protocol).
Current discussions: towards a more systematic approach to SEA - a three-tier approach was introduced, distinguishing between three main SEA types. Empirical evidence was provided by examples from the UK, the Netherlands, Scandinavia, etc. Tiering occurred also between SEA and EIA.	

APPENDIX B COMBINATIONS OF SEARCH WORDS

- “Strategic Assessment”
- “Strategic Environmental Assessment”¹⁵⁸ - 845,000 documents
- “Strategic Environmental Assessment follow-up” – 11 documents
- “follow-up of/to/for Strategic Environmental Assessment follow-up” (as a control search; overlapped with the above searches’ results)
- “Sustainability Assessment”
- “Sustainability Assessment follow-up”
- Strategic Environmental Assessment audit
- Monitoring Strategic Environmental Assessment
- Strategic Environmental Assessment state monitoring
- Strategic Environmental Assessment state ecological control
- Ex-post Strategic Environmental Assessment
- Ex-post evaluation Strategic Environmental Assessment
- Ex-post activities Strategic Environmental Assessment
- Ex-post tools Strategic Environmental Assessment
- Post decisional Strategic Environmental Assessment
- Programmatic Environmental Impact Statement (for USA)
- Programmatic EIS monitoring
- EIA evaluation
- EIA evaluation strategic
- Monitoring Environmental Assessment
- Strategic Environmental Management Plans, etc.

¹⁵⁸ This combination showed 845,000 matches in Google for example; I have scanned the titles of the 1st hundred and added another key word as shown above.

APPENDIX C DISSERTATION RESEARCH SCHEDULE

Research Schedule as per Objectives													
Objectives/Periods	Sept - Dec 2005	Jan - Apr 2006	May- Aug 2006	Sept- Dec 2006	Jan - Apr 2007	May- Aug 2007	Sept- Dec 2007	Jan - Apr 2008	May- Aug 2008	Sept - Dec 2008	Jan - Apr 2009	May- Aug 2009	Sept- Dec 2009
Zero Objective: Preparation for the research													
Objective 1. Examine history, evolution and the current status of the SEA follow-up discourse and practice											Update	Update	Finalise/ pre- defence
Objective 2. Conceptualise SEA follow-up and propose the evaluative and explanatory SEA follow-up framework (with testable variables)						revise	revise	revise			Update	Update	Finalise/ pre- defence
Objective 3. Test and validate the SEA follow-up framework and draw recommendations					Trip 1	Trip 2 & 3	Trip 4					Update	Finalise/ pre- defence
Plan B (Alternative case studies if something was wrong with the preferred cases)													

APPENDIX D DETAILED LIST OF CONTACTS AND INTERVIEWEES FOR CASE STUDIES

Case Study 1. Merseyside, UK			
	#/code	Date/place	Position and/or organisation
Formal interviews (* - phone interviews)	1. 1A & 1B	8 Feb 2007/ Liverpool	Team Leader Strategic Transportation & Planning Unit Technical Services Department Sefton Metropolitan Borough Council Balliol House, Balliol Road, Bootle L20 3NJ Environment Officer Merseytravel 24 Hatton Garden, Liverpool, L3 2AN
	2. 1C	12 Feb 2007/ Liverpool	*Merseyside LTP Support Unit 24 Hatton Garden, Liverpool, L3 2AN
	3. 1D	12 Feb 2007	Administration Team Manager Knowsley Metropolitan Borough Council, PO Box 21, Archway Road, Huyton, Merseyside, L36 9YU
	4. 1E	13 Feb 2007/ Liverpool	Transport Policy Team Leader Liverpool City Council Municipal Buildings, Dale St, Liverpool, 2 2DH
	5. 1F	13 Feb 2007/ Liverpool	1) Coordinator of the NGO Liverpool Friends of the Earth, Liverpool 2) Principal Environmental Protection Officer Sefton Metropolitan Borough Council Balliol House, Balliol Road, Bootle L20 3NJ
	6. 1G	14 Feb 2007/ Liverpool	Senior Transport Planner Merseyside Information Service - Mott MacDonald Ltd
	7. 1H	15 Feb 2007/ Liverpool	Principal Transport Officer (Policy) Urban Regeneration & Housing St.Helens Council Wesley House, Corporation Street, WA10 1HF
	8. 1I & 1Ia	15 Feb 2007/ Liverpool	Environmental Health Officer Environmental Health and Trading Standards Service Liverpool City Council 6 Brougham Terrace, West Derby Road, Liverpool , L6 1JH
	9. 1J	16 Feb 2007/ Birkenhead	Group Leader Forward Planning and Policy Section Technical Services Department Cheshire Lines Building, Canning Street, Birkenhead, Wirral, CH41 1ND
Informal consultations or correspondence	1K	Sept 2006-present	Professor, Department of Civic Design, University of Liverpool Gordon Stephenson Building, 74 Bedford Street South, Liverpool, L69 7ZQ
	1L	Jan – Feb 2007	Access Plan Coordinator Merseyside, 24 Hatton Garden Liverpool, L3 2AN
	1M	Oct 2006 – Feb 2007	PhD Candidate, Department of Civic Design, University of Liverpool Gordon Stephenson Building, 74 Bedford Street South, Liverpool, L69 7ZQ
	1N	Feb 2007 – present	Postgraduate researcher Department of Civic Design, University of Liverpool Gordon Stephenson Building, 74 Bedford Street South, Liverpool, L69 7ZQ
	1O	Jan – Feb 2007	Project Manager Mott MacDonald MIS 325 Royal Liver Building, Pier Head, Liverpool, L3 1JH
	1P	Feb 2007	A regular member of the Liverpool City Community, middle-income, middle-aged, not a car owner
	1R	Feb 2007	A regular member of the Liverpool City Community, middle-income, middle-aged, a car owner

Case Studies 2-4. Lancashire, UK			
	#	Date/place	Position and/or organisation
Formal interviews (* - phone interviews)	1. 2A	30 Apr 2007/ Preston	Senior Engineer Local Transport Planning P.O.Box 78, County Hall, Fishergate, Preston, Lancashire, PR1 8XJ
	2. 2B	30 Apr 2007/ Preston	Highways and Environmental Management Section Environment Directorate Lancashire County Council Guild House, Cross Street, Preston, Lancashire, PR1 8RD
	3. 2C	1 May 2007/ Preston	Environment Directorate Lancashire County Council Guild House, Cross Street, Preston, Lancashire, PR1 8RD
	4. 2D	2 May 2007/ Blackpool	Transport Policy Officer Blackpool Borough Council Town Hall, Blackpool, FY1 1AD
	5. 2E & 2F	4 May 2007/ Blackburn	Principal Transport Planner Transport Planning Team member Blackburn with Darwen Borough Council Room 411, Old Town Hall, Blackburn, BB1 7DY.
	6. 2G	7 May 2007/ Preston	Environmental Officer Preston City Council, Town Hall, Preston PR1 2R
	7. 2H	7 May 2007/ Preston	Group Manager Transport Planning Lancashire County Council P.O.Box 78, County Hall, Fishergate, Preston, Lancashire, PR1 8XJ
	8. 2I	24 May 2007	*Strategic Planner Development Plans Unit Blackpool Borough. Council Town Hall, Blackpool, FY1 1AD
Informal consultations or correspondence		April –May 2007	Sustainability Appraisal Officer Environment Directorate, Lancashire County Council PO Box 9, Guild House, Cross Street, Preston PR1 8RD
		April 2007	Divisional Head Engineering Traffic & Transportation Manager Preston City Council, Town Hall, Preston PR1 2R
		April 2007	Team Leader One Stop Shop Bdirect, Room 411, Old Town Hall, Blackburn, BB1 7DY.
		May 2007	Senior Planner - Forward Planning Planning and Building Control Service Lancaster City Council Palatine Hall, Dalton Square, Lancaster

Case Study 5. Saskatchewan, Canada			
	#	Date/place	Position and/or organisation
Formal interviews (* - phone interviews)	1. 3A	22 Nov 2007/ Saskatoon	Project Manager Environmental Assessment Branch 4th Floor, 3211 Albert Street, Regina, SK, S4S 5W6
	and 3B		Manager Planning & Allocation, Forest Service Saskatchewan Environment, Box 3003 Prince Albert, SK S6V 6G1
	2. 3B	14 Dec 2007/ Prince Albert	Manager Planning & Allocation Forest Service Saskatchewan Environment, Box 3003 Prince Albert, SK S6V 6G1

Case Study 5. Saskatchewan, Canada			
	#	Date/place	Position and/or organisation
	3. 3C	14 Nov 2007/ Regina	Director Environmental Assessment Branch 3211 Albert Street, Regina, SK, S4S 5W6
	4. 3D	14 Nov 2007/ Regina	Director Air and Land Section Environmental Protection, Environmental Management Division Saskatchewan Environment Prince Albert, SK S6V 6G1 & 3211 Albert Street, Regina, SK S4S 0B1
	5. 3E	14 Nov 2007/ Regina	Director Strategic and Land Use Planning Section Corporate Policy and Planning Branch Saskatchewan Environment, Regina, Saskatchewan S4S 5W6
	6. 3F	13 Dec 2007/ Saskatoon	Member Saskatoon Nature Society Box 448, RPO University, Saskatoon, SK S7N 4J8
	7. 3G	14 Dec 2007/ Prince Albert	Federal-Provincial Initiatives Coordinator Forest Service Branch Saskatchewan Environment Box 3003, Prince Albert SK S6V 6G1
	8. 3H	17 Dec 2007 (Nov-Dec 2007)	*Area Forester – Hudson Bay Saskatchewan Environment Lands and Forest Division, Forest Service, Hudson Bay, SK
	9. 3I	18 Dec 2007 (Nov-Dec 2007)	*Forest Management Planning Coordinator Saskatchewan Environment Forest Service Box 3003, Prince Albert, SK, S6V 6G6 Canada
	10. 3J	19 Dec 2007	* Strategic Planning Coordinator, (2010-2030 FMP's Author & Planning Team Chairperson), Weyerhaeuser Saskatchewan Ltd. PO Box 3001 Hwy 55 E Millside, Prince Albert SK, S6V 5T5
	11. 3K	20 Jan 2008	* Area Forester - Meadow Lake Forest Field Operations and Silviculture Unit Saskatchewan Environment Forest Service
Informal consultations or correspondence		Oct-Dec 2007	Associate Professor EA and Resource Management Department of Geography, University of Saskatchewan Saskatoon, Saskatchewan, Canada, S7N 5A5
		Oct 2007/ Saskatoon	-Editor of the Canadian Journal of Environmental Law & Policy -Professor, College of Law University of Saskatchewan 15 Campus Drive, Saskatoon, SK, S7N 5A6
		Nov – Dec 2007	Forest Coordinator & Executive Director Saskatchewan Environmental Society – NGO, Box 1372, Saskatoon, SK, Canada S7K 3N9
		8&12 Nov 2007/ Saskatoon	President / Seasonal lecturer Saskatchewan Environmental Society – NGO, Box 1372, Saskatoon, SK, Canada S7K 3N9 / Department of Geography, University of Saskatchewan, Saskatoon, SK, Canada, S7N 5A5
		May 2006 – March 2007	Associate Professor Department of Geography & Environmental Studies, Wilfrid Laurier University 75 University Avenue West, Waterloo, Ontario, Canada, N2L 3C5
		Dec 2007	Supervisor, Forest Information Centre Forest Service Box 3003, Prince Albert, SK, S6V 6G6 Canada

Case Study 6. The National Capital of Ontario, Canada			
	#	Date/place	Position and/or organisation
Formal interviews (* - phone interviews)	1. 4A	4 Dec 2007/ Ottawa	Senior Environment Officer Environmental Services Environment Capital Lands and Parks Branch National Capital Commission
	2. 4B	4 Dec 2007/ Ottawa	President G.A. Packman & Associates Inc. (EA Consultancy)
	3. 4C	4 Dec 2007/ Ottawa	Acting Director Planning, Design and Land Use Capital Planning and Real Asset Management Branch National Capital Commission
	4. 4D	5 Dec 2007/ Ottawa	Officer, Public Consultation Access to Information and Privacy /Public Affairs Capital Planning and Real Asset Management Branch National Capital Commission
	5. 4E	5 Dec 2007/ Ottawa	Director, Urban Lands and Transportation Urban Lands and Transportation Environment Capital Lands and Parks Branch National Capital Commission
	6. 4F	5 Dec 2007/ Ottawa	Acting Manager, Strategic Planning and Government Liaison Strategic Planning, Capital Planning and Real Asset Management Branch, National Capital Commission
	7. 4G	5 Dec 2007/ Ottawa	Senior Policy Advisor, Policy Analysis Canadian Environmental Assessment Agency Place Bell Canada, 160 Elgin Street, 22nd Floor Ottawa, Ontario, K1A 0H3
	8. 4H	6 Dec 2007/ Ottawa	Land Manager Urban Land and Transportation Environment Capital Lands and Parks Branch, National Capital Commission
	9. 4I	6 Dec 2007/ Ottawa	GIS office coordinator National Capital Commission
	10. 4J	6 Dec 2007/ Ottawa	Senior Interpretive Planer Capital Interpretation National Capital Commission
Informal consultations or correspondence		Dec 2007 -Jan 2008	Ex-director of the NGO Greenspace Alliance, Ottawa
		Dec 2007 -Jan 2008	Chair of the NGO Greenspace Alliance, Ottawa

APPENDIX E INITIAL RESEARCH SCHEDULE, TASKS AND OBJECTIVES FOR CASE STUDIES IN CANADA (WRITTEN FROM THE AUTHOR'S POSITION)

Objectives of research in Canada

Through the proposed research in Canada I aim to meet the following objectives:

- Explore the SEA follow-up context in Canada
- Adjust the framework to examine the SEA follow-up process and structure;
- Look for benefits/barriers & drawbacks of SEA follow-up;
- Look for strengths and weaknesses of SEA follow-up cases;
- Look for factors unforeseen in the framework and for recurrent links between variables;
- Draft reflections as per the variables in the framework.

Methodological approach to research in Canada

The research in Canada will consist of three components: “context” and “process” research, and interviews:

“Context” research - the materials relevant to the context of Case Studies and their SEA follow-up are to be collected to cover the following areas:

- Legislation and regulations in Canada
- National guidelines /manual
- Planning structure, policy – and decision making system in Canada
- Materials related to policy and decision making culture in Canada
- Economic, social and political situation in the areas of Case Studies’ location, etc.
- Sector/type specific planning and guidance for Case Studies:
 - ☐ Plan, land-use, national level (a lot of sub-strategies)- the **SEA of Core Area Sector Plan by the National Capital Commission, Ottawa, Oct 2007;**
 - ☐ Forestry, land-use, plan type, provincial/sub-regional –the **SEA of the Forest Management, Saskatoon-Regina-Prince Albert, Oct-Dec 2007.**

“Process” research intends to see whether there are links (conformance) between the strategy implementation activities and SEA follow-up activities (identifying actions/decisions/divergences (deliberate or not), etc.) as well as to track the managerial applications of both groups of activities and their chronology. Testing of the framework is vital.

Interviews: the questionnaire includes 34 questions structured around the variables of the SEA follow-up framework and other relevant research questions. The interview time is estimated in 80-100 min based on the preceding interviews in the UK.

Schedule for the PhD research in Canada, University of Saskatchewan: 15 Oct- 29 Dec 2007

Activities/Weeks	15 Oct - 29 Dec 2007										
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI
Collect and examine context literature on EA in Canada: legislation, manuals, guidelines, planning structure, etc.											
Collect & examine province, sector & type specific SEA context materials for Case Study 1 (Ottawa-Saskatoon)											
Conduct Case Study 1 – SEA of the NCC Vision (field trip 1-Ottawa, interviews with stakeholders (ca. 9-10), desk research, collection of the context and baseline literature, etc.)											
Take field notes and sketch memos for Case Study 1 as per the framework of SEA follow-up											
Write up a reflection brief paper on Case Study 1; revise the relevance of the framework to Canadian conditions											
Collect and examine province, sector and type, i.e. plan-specific SEA context materials for Case Study 2 in Saskatchewan											
Conduct Case Study 2 – SEA of Forest Management Plan (field trips 2-3 –Saskatoon-Regina-Prince Albert -interviews with stakeholders (ca. 10-12), desk research, collection of background and baseline literature etc.)											
Take field notes and sketch memos on Case Study 2 as per the framework of SEA follow-up											
Write up a reflection brief paper on Case Study 2; verify the relevance of the framework to Canadian conditions											
Compare the impressions from the SEA follow-up research for two cases, take notes and memos on the country planning, other specific conditions, sketch stakeholder diagrams for both cases, sketch positioning maps for strategies, compile the interview protocols...											

APPENDIX F INTERVIEW QUESTIONS (A GENERAL LIST)

Questionnaire for...(country) Case Study: environmental and SEA/SA follow-up to... (PPP/strategy(ies))

Interview # _____ Date of the interview _____

Name of the interviewee _____ Place of the interview _____

Position & address of the interviewee _____

Could you tell me, please, about your experience and responsibilities in (PPP/strategy (-ies) and its/their SEAs?

➤ Proponent /Partners' rep (P)

➤ Authority official (A)

➤ Consultant (C)

➤ NGO/Public rep or a citizen (N/P)

Party				Questions	Answers
				Core Questions (as per categories of variables and variables of the analytical framework) <i>Any special break-down which is important for the strategy(ies) under examination is acknowledged (e.g., the history of the Lancashire Local Transport Plans was broken into three periods: before 2000, from 2001 (LTP1) to 2004 (SEA Directive & drafting of 2nd LTP), from 2004 and afterwards)</i>	
P	A	C	N/P	1. In your view, has there been follow-up of environmental aims and impacts in: <ul style="list-style-type: none"> ➤ PPP/strategy(ies) ➤ ... If yes, what was the driving force for that? And at what stages it was considered (the early stages of EA, i.e. screening, scoping, later)?	
P		C		2. Tell me, please, what kind of environmental follow-up measures (impact/ baseline monitoring, auditing / SEMP), if any, have been foreseen: <ul style="list-style-type: none"> ➤ for ... PPP/strategy(ies)? 	
P	A	C		3. What is the basis of choosing indicators to monitor environment related impacts/activities of PPPs/strategy(ies)? Any scoping or screening for environmental indicators? <ul style="list-style-type: none"> ➤ And how has env. monitoring for earlier PPP/strategy(ies) been accomplished (if at all)? 	
			N/P	4. Do you have separate reports that show which environment related impacts/activities are monitored and how?	
P	A	C		5. Are the monitoring indicators and methods to measure them clearly specified in the documentation/monitoring scheme? Are these docs available?	
P	A	C		6. After monitoring is performed its results require processing. Are you aware if the evaluation of monitoring results has been foreseen in earlier PPP/strategy(ies)? In this PPP/strategy(ies)? <ul style="list-style-type: none"> ➤ If yes, who was responsible for evaluation of monitoring results and how and when was it fulfilled? Any reports? ➤ Has been used for management? ➤ Has been communicated, if required? 	

Party				Questions	Answers
P	A	C	N/P	7. In your opinion, are monitoring and evaluation results taken into consideration in subsequent decision making about the PPP/strategy(ies)? ➤ If yes, how (adjustments in the PPP/strategy(ies) implementation or...)?	
P	A	C	N/P	8. Could you, please, name the stages/moments when the communication about environmental follow-up activities occurs(ed) (published reports on monitoring, etc.), if any?	
P	A	C	N/P	9. What, in your opinion, could be the consequences of non-compliance of PPP/strategy(ies) with: ➤ Environmental targets? ➤ Goals and targets of PPP/strategy(ies)?	
P	A	?		10. What are the main goals of env. follow-up for PPP/strategy(ies) and have they been achieved? (i) controlling strategies and their environmental impacts; (ii) maintaining decision-making flexibility and promoting an adaptive management approach to SEA and PPP management; (iii) improving scientific and technical knowledge; (iv) improving public awareness and acceptance of PPP/strategy(ies) and their projects; or (v) integrating with other information (e.g., state of the environment reports)	
P				11. Are you aware if SEA follow-up activities have been fulfilled by the parties assigned? If yes, then: ➤ Could you, please, provide me with the information/reports about who, how and when fulfilled these activities? ○ If such information exists, is it open to all stakeholders (if needed)?	
			N/P	12. Have you ever asked the authorities for env. monitoring data on the earlier and this PPP/strategy(ies)? ➤ If yes, have it been provided and how has this happened? ➤ If no, why (no interest in monitoring from the public, unwillingness to share information, etc.)?	
P	A	?		13. Could you please tell me, how env. follow-up activities have considered time and resources constraints?	
P	A	C	N/P	14. Are you aware of what kinds of existing monitoring and management schemes (e.g., air pollution measurements, state of the environment reporting) (could) have been used for env. follow-up in PPP/strategy(ies)? (something changed in the earlier ones?)	
P				15. Do you know if PPP/strategy(ies) have extra budget in (SEA) follow-up schemes to cope with for unpredicted/emergent/divergent impacts?	
P	A	C		16. Are the parties responsible for implementing SEA follow-up are clearly identified alongside follow-up timetables?	
			N/P	17. Have you ever participated in discussion related to follow-up activities of PPP/strategy(ies)? ➤ If yes, how and when did these meetings take place? And what was your contribution?	
P	A	C	?	18. Do you know, if participants to PPP/strategy(ies) consulted on the procedural and methodological approaches to the env. follow-up? To the same extend for earlier PPP/strategy(ies)? ➤ If yes, how and when did these meetings take place?	
P	A	C		19. Are there any provisions of 'institutional memory' and knowledge brokering (contract with universities or research institutes for knowledge sharing)?	
P	A	C	?	20. Is there any kind of training or education and capacity-building imparted for follow-up?	
P	A	C		21. Are you aware if PPP/strategy(ies) proponents have required services of SEA consultants/ authorities/others to implement SEA follow-up (where applicable)? How have the cooperation and coordination of actions occurred?	

Party				Questions	Answers
P	A			22. From your point of view, have the env. follow-up activities been integrated with the implementation monitoring of PPP/strategy(ies)? ➤ If yes, then how this integration functions? ➤ If no, please, explain, how SEA follow-up is regulated and evaluated (through a separate scheme?)?	
P	A			23. Do you agree that plan relates to lower and upper level strategies in this way (show the sketch)? From your knowledge, have any cases of deliberate (non)-intended changes/divergences to PPP/strategy(ies) occurred? ➤ If yes, how has it been acknowledged in SEA follow-up? (say, annual reports caused changes to the further steps in PPP/strategy(ies) and its env. follow-up had to be adapted correspondingly)? ➤ And vice versa: if some env. effects have been identified not predicted to the full before, has the PPP/strategy(ies) been changed? Any examples? Who (if anybody) is responsible to cope with emergent situations?	
P	A	C		24. How is the feedback from env. monitoring of earlier and this PPP/strategy(ies) delivered to other horizontal and upper/lower PPP/strategy(ies)?	
P		C		25. Based on your experience, did the earlier and this PPP/strategy(ies) take into consideration the results of monitoring of previous strategies? And how?	
P				26. Could you, please, specify how env. follow-up results have been integrated in the annual reports on PPP/strategy(ies), if at all?	
P	A	C	N/P	27. In your mind, how have constraints and limitations of higher level of policy- and decision making have been reflected in SEA follow-up (if applicable)?	
P	A	C	N/P	28. Could you recall any cases when PPP/strategy(ies)'s budget was changed/financial means diverted due to SEA follow-up measures/findings?	
				Additional questions	
P	A	C	N/P	29. Do you think SEA follow-up actions should be carried out without formal legal provisions and/ or without SEA follow-up program? Please, explain (would you do it then?).	
P	A	C	N/P	30. Could you, please, name the main obstacles (if any) to elaborate or carry out SEA follow-up in terms of: ➤ Monitoring measures? ➤ Evaluation of the monitoring results? ➤ Application of monitoring and evaluation results for management? ➤ Communication of monitoring, evaluation, and decisions results?	
P	A	C	N/P	31. Which social, economic or political factors, in your opinion, could influence SEA follow-up implementation and how (public pressure, demographics, political will, national policies, etc.)?	
P	A	C	N/P	32. Do you think SEA follow-up is needed? What are its benefits? Could PPP/strategy(ies) attain its goals without it?	
P	A	C	N/P	33. What kind of benefits from your point of view SEA follow-up might provide for the proponents, regulators and the community (minimises adverse effects, maximises the positive outcomes of strategic initiative during its life-cycle, etc.)?	
P	A	C	N/P	34. Is there anything that we haven't discussed and you think is important?	

NB: The darker background highlighted more important questions that were asked in case the interviewee(s) were short of time (11 questions less).

APPENDIX G ELECTRONIC SURVEY: ANNOUNCEMENT IN THE IAIA E-NEWSLETTER, COVER LETTER AND QUESTIONNAIRE

Electronic Survey: Announcement

Monday - April 21, 2008 8:35 PM

IAIA April 2008 e-news (#2)

Table of Contents:

1. IAIA08 Announcements
2. Board Election Results
- 3. Survey regarding SEA follow-up**

3. Survey regarding SEA follow-up

The Department of Environmental Sciences & Policy, Central European University, Budapest is conducting a worldwide web-survey on SEA follow-up and cordially invites you to take part in it. The survey consists of 9 questions and will require approximately 10-15 minutes of your time. Please follow this link to fill it out:

http://www.surveymonkey.com/s.aspx?sm=rddLNxCojX0o72HzH707fw_3d_3d

Please respond by 10 May 2008. (Submitted by Maia Gachechiladze ephgam01@phd.ceu.hu & Aleh Cherp)

Electronic Survey: Cover Letter

[SURVEY PREVIEW MODE] Follow-up to Strategic Environmental Assessment - Windows Internet Explorer

<http://www.surveymonkey.com/s.aspx?sm=yLulHmVrB6IEeEtMfDr48M574bz85KucPKC1dh161a8TDuzqTgSUZXBtU1Fdnvak5Fq99K73Gv1YvNx%2bJ32x1JYn29cHahb3fsEjzVAA%3d#q1>

Follow-up to Strategic Environmental Assessment [Exit this survey >>](#)

Introduction to the SEA follow-up survey

25%

Strategic Environmental Assessment (SEA) - sometimes also referred to as "programmatic EIA", "environmental assessment of plans and programmes", etc. - is Environmental Assessment of strategic initiatives.

SEA follow-up includes monitoring, evaluation, management and communication activities taking place during the implementation of a strategic initiative (after its SEA has been completed). SEA follow-up is crucial for ensuring that SEA findings and recommendations affect not only FORMULATION but also IMPLEMENTATION of strategic initiatives.

This survey is part of a research project on SEA follow-up at the Department of Environmental Sciences & Policy, Central European University, Budapest. The aim of the survey is to 1) examine the current state of SEA follow-up practice and 2) validate elements of the SEA follow-up framework tested within the research.

The survey consists of 9 questions and will require appr. 10-15 min of your precious time. We would appreciate receiving your response by May 20th, 2008.

Your contribution to this worldwide research is very important. We are looking forward to your views on SEA follow-up practice.

Thank you very much,

Maia Gachechiladze, Aleh Cherp

[Next >>](#)

CELL eTD Collection

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[SURVEY PREVIEW MODE] Follow-up to Strategic Environmental Assessment - Windows Internet Explorer

http://www.surveymonkey.com/s.aspx?sm=yLJhMmVb6IIeEdMFdR46M574bz85KUCPKC1dh161a8TDuzqTg5UZXBruH1Fdnvak5Fq99K73Gv1YvNbx%2bJ32x1JYn29cHahb3fsEjzVAA%3d

Follow-up to Strategic Environmental Assessment Exit this survey >>

This section (3 questions) seeks for your opinion in general, i.e. at the level of theory.

100%

***7. What kind of obstacles have you encountered in SEA follow up? Please, grade the given obstacles and/or specify others:**

	No obstacle	Minimal obstacle	Average obstacle	Significant obstacle	Not sure
Lack of legal/formal requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of clear guidelines/methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of institutional commitment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="text"/>				

***8. Our empirical findings reveal 7 benefits of SEA follow-up (aspects it can trigger or improve). Please, grade their significance as per your experience with the SEA, SEA follow-up and their strategies:**

	not significant	moderately significant	significant	strongly significant	very significant
control of a strategy to verify conformance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
flexible & adaptive decision-making	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
learning and knowledge transfer (feedback & feedforward)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
open & transparent communication/cooperation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
links within a strategy and in-between the related horizontal, vertical and diagonal tiers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
capacity building and management competence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
interest and credibility via informal communication stemming from SEA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Please specify any other (very)significant benefits from your practice:					
<input type="text"/>					

***9. Please evaluate the current state of theory and practice SEA follow-up and their relationship:**

	Not developed	Somewhat developed	Fully developed
Theory	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Correspondence between theory and practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

APPENDIX H CONTRASTING THE CONTEXT ELEMENTS FROM THE IMPLEMENTATION STUDIES, POLICY ANALYSIS, AND SEA AND SEA FOLLOW-UP

Theory course/ Dominant lines	Provisions	Institutional setting	Planning/decision- making	Resources	Competence	Other
Context and independent variables from implementation studies	Policy setting and characteristics ¹⁵⁹	The policy transfer process within the layered political-administrative system and the management issue; Horizontal inter-organisational relationships Factors affecting the responses of implementation agencies (i.e. characteristics of the agency ¹⁶¹ and the behaviour of front-line staff ¹⁶²)	Policy formation (e.g., from the top; policies are distinguished from each other in terms of the extent to which they are clearly specified, resources and supported; feedback occurs and policy adjustments are made over time)			The impact of responses from those affected by the policy ¹⁶⁰ Wider macro-environmental factors (dynamic external phenomena that may influence the implementation but that are under little or no control)
Context dimensions ¹⁶³ from Strategic Management	Laws/ regulations applicable to the enterprise and the courts/government officials who interpret and reinforce them, along with other groups and institutions in society with power		Social – group/ individual perceptions, values, beliefs, etc. that affect actions and relationships of organisation and its strategists to persons, groups, and the society	Technological environment – machines, materials, and knowledge which go into the production of goods/ services		Economic environment – financial markets, sources of capital, product and service markets, demand and opportunity for profits, changes and trends in the economy
		Internal fit or form of organisation (structure, human, financial & other material resources; also consistency of those elements, assurance of activities & optimisation)				
Context variables from the SEA	Formal requirements and clear provisions	Achievement of a willingness to co-operate - Consideration of traditional decision-making approaches		Appropriate funding, time and support	Acknowledging and dealing	Setting clear boundaries – and defining roles of

¹⁵⁹ An approach can be to work with the Lowi's (1972) taxonomy of policy types: distributive, redistributive, regulatory, constituent; however often the distinction between them is hard to draw (Hill & Hupe 2002, 124).

¹⁶⁰ There could be powerful responses from 'powerful' stakeholders, e.g., large companies or responses from weaker actors that may feed back into the policy implementation process (Hill & Hupe 2002, 134).

¹⁶¹ van Meter and van Horn (1975 cited in Hill & Hupe 2002, 129) further subdivide this into two position: 1) the characteristics of the implementation agencies, including issues like organisational control, inter-organisational issues, the formal and informal linkages with the policy-making or enforcing bodies; 2) the response of the implementers involving three elements: their cognition (understanding) of the policy, the direction of their response toward it (acceptance, neutrality, rejection) and the intensity of that response.

¹⁶² This is the bottom-up view attempting to explain the implementation process from inside the agency looking at the factors that affect the staff's behaviour (Lipsky 1983, 131).

¹⁶³ In the theories of strategy formation, those are basically understood as external environmental factors, to which the best 'fit' is essential for a successful strategic implementation process. The given common set of the context elements is conceptualised by Mintzberg (1987, 359) within the Design School of thought (Chapter 2).

Theory course/ Dominant lines	Provisions	Institutional setting	Planning/decision- making	Resources	Competence	Other
discourse	to conduct & effectively consider SEA				with uncertainties	assessors; Clear goals for assessment
Context factors from the current SEA follow-up	Regulations and institutional arrangements (legal basis, reinforcement, the existing SEA system, etc.)		Types of activity (planning level, sector, scale)	Resources and capacities		Approaches and techniques Stakeholders' interaction with the contextual factors

Sources: (Arts 1998; Fischer 2005; Fischer 2007,26-8; Hill & Hupe 2002,16-190; McGlashan & Singleton 1987,49-84; Morrison-Saunders & Arts 2004,14; Porter 1998; Sharplin 1985,10-12).

APPENDIX I COMPLETE ANALYSIS OF CASE STUDIES 1 TO 6

This Appendix contains the complete within-case examination of SEA follow-up of four UK and two Canadian cases as per the evaluative and explanatory framework (Objective 3a, Chapter). The case-wise summary and conclusions of this examination are presented in Chapter 6 alongside the variables' grades.

1. Analysis of cases in the UK

This section of the Appendix analyses transport strategies in Merseyside (Case 1) and Lancashire (Cases 2-4) according to the variables of the SEA follow-up framework. The SEA follow-up context analysis is carried out concurrently for all four UK cases, whilst the 'process' and 'structural' dimensions are viewed first for Merseyside and then for Lancashire.

1.1. Context dimension of SEA follow-up in Merseyside and Lancashire

The context SEA follow-up dimension includes 10 variables (Chapter 4). As said in Chapter 6, the contexts for the Merseyside and Lancashire cases are quite similar and thus their descriptive analysis is accomplished together and explained below as per the variables (for the grades see Chapter 6 and Appendix J, for explanations of and reasoning behind the grades see Chapter 3). If there are differences in the context variables among the cases, they are examined accordingly.

1.1.1. Existing planning and policy-making practice and the SEA system in the UK

1.1.1.1. Planning type and policy framework for SEA/follow-up

The planning system in the UK has undergone intensive reforms during the last three decades. Before 1986, there was a two-tier administrative system with the national, counties and districts planning authorities. It was then replaced with a mixed decision-making system with either two tiers, i.e. unitary district authorities or three tiers, i.e. county and district authorities. More planning and decision-making power has been delegated to the regional and local authorities (DETR 1998)¹⁶⁴.

There is a hierarchical structure of guidance and plan making in the UK covering national, regional and local planning (e.g., DCLG 2006):

1. The central Government determines policies on different aspects of land use planning and regulates the operation of the planning system. National planning policies are issued in the form of Planning Policy Statements (PPS) and Planning Policy Guidance Notes (PPG)¹⁶⁵, Minerals Policy Statements and Minerals Planning Guidance Notes, annual Circulars and Parliamentary Statements.
2. Regional Planning Bodies (RPBs) prepare Regional Spatial Strategies (RSS)¹⁶⁶. In 2008, the RPB for North West, i.e. the North West Regional Assembly¹⁶⁷ was substituted with the 4NW¹⁶⁸. The latter

¹⁶⁴ This echoes one of the trends in the political and policy changes that influence EA, i.e. the trend towards decentralisation of decision-making (Chapter 4).

¹⁶⁵ Program for Replacement of PPG Notes by PPS was initiated by the ODPM (since 2005 the "Department of Communities and Local Government" (DCLG)) in 2004 and resulted in the revision of 12 PPGs including PPG11 (Regional Planning) and PPG12 (Development Plans).

¹⁶⁶ Under the Planning & Compulsory Purchase Act of 2004, RPBs in eight out of nine regions in the UK are required to prepare a RSS (in London, the Mayor prepares the Spatial Development Strategy). Each RSS should be consistent with, and build on, the national policies (ODPM 2004). It can include policies relating to the area, or part of the area, of more than one local planning authority, allowing for sub-regional planning and should provide visuals and maps of the future planned state of the region and show how the implementation of the plan can contribute to sustainable development objectives (ODPM 2004).

¹⁶⁷ During the field trip for this research, i.e. in spring 2007, the North West Regional Assembly was drafting the North West RSS to be adopted in December 2007 and finalizing the Regional Transport Strategy. Two other key regional strategies, the Regional Economic and Housing Strategies were revised and submitted by the regional bodies to the Deputy Prime Minister in December 2005 and January 2006 respectively (BBC 2006a).

became responsible for preparing, monitoring, reviewing and reporting on the RSS and for providing comments on the locally prepared planning policies and major planning applications in the region (NWRP 2009). The North West RSS provides a framework for the physical development of the region by 2021 and sets priorities for dealing with environmental issues, transport, infrastructure, economic development, agriculture, minerals, waste treatment and disposal (NWRA 2006). Its integral part is the Regional Transport Strategy (RTS), which de a regional context for the preparation of LTPs and the region's priorities for transport investment and management (ODPM 2004).

3. Local planning authorities (LPAs) (other than county councils) must prepare a Local Development Framework (LDF)¹⁶⁹ according to regional and national policies. The North West planning and transport authorities should align to the North West RSS and RTS when producing their LTPs (NWRA 2006). The LTPs¹⁷⁰, 5-year integrated transport strategies, are prepared by local authorities within the LDFs in partnership with the community. They need to specify resources for delivery of the targets identified (NWRA 2006), provide a greater certainty of funding over a 5-year period, consider capital and revenue spending, conduct local consultations, and manage performance (DETR 2000b).

For more than fifteen years the planning and decision-making system in the UK has provided for an input from environmental and sustainability appraisal and other para-SEA approaches. Prior to the SEA Directive, objectives-led environmental appraisal had been applied within land use, resource and waste development planning (Fischer 2007). In 1991, Department of the Environment (DoE) issued "Policy Appraisal and the Environment" guidance for central government stressing the need to assess environmental impacts when analysing policy decisions. Later, Department of the Environment, Transport and Regions (DETR) issued the guidance encouraging local authorities to extend appraisals to cover sustainable development objectives (DETR 1998). It also published a good practice advice on undertaking "Sustainability Appraisals of Regional Planning Guidance" (Burns 2007; DETR 2000a). Further, the requirements of the SEA Directive were transposed through the EA of Plans and Programmes Regulations 2004 and the Planning and Compulsory Purchase Act of 2004 for England and Wales. To support their application several more SEA/SA guides such as "A Practical Guide to the Strategic Environmental Assessment Directive" (ODPM *et al.* 2005), and "Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents" (ODPM 2005d) were issued. As Fischer (2007,79) notes "One of the main strengths of the UK SEA system are the various published guidance documents that are available, supporting good practice...". However, frequently changing planning and SA/SEA/etc. guidance and reforms in planning bodies at all administrative levels create confusion in planning authorities (e.g., 1A, 1B).

1.1.1.2. Political commitment to SEA/ follow-up and influence

According to the national policies, plans and guidance, awareness of environmental and sustainability issues started rising on the political agenda in the 1990s. Most national strategies, white papers, PPS, PPGs and other documents stress a need for an integrated, sustainability-led approach to planning and

¹⁶⁸ The new North West regional leaders forum became a RPB on 15 July 2008 when the North West Regional Assembly ceased to exist (NWRP 2009). This reform occurred a year after the data collection for this Dissertation was completed in spring 2007.

¹⁶⁹ In 2004, the Planning and Compulsory Purchase Act replaced the previous system of Local Plans with LDFs, similarly to how Structure Plans at the regional level were replaced by RSSs. According to the Government's PPS11, the old Local and Structure Plans can be saved for a period of 3 years until new strategies and plans are endorsed (ODPM 2004). LDFs include a Local Development Scheme, Local Development Documents and a Statement of Community Involvement (DCLG 2006). Earlier, Local Plans were prepared by district councils to detail policies and proposals for development and land use, whilst Structure Plan determined strategic planning policies for a particular shire county to be delivered through Local Plans (NWRA 2006). The system of Local Plans and Structure Plans was introduced by the Labour Government in 1997 through its modernisation reform of local planning and authorities.

¹⁷⁰ The LTP framework replaced the Transport Policies and Programme (TPP) system of bidding for capital resources in 2000. Under the TPP system authorities used to bid for funding for individual schemes and the central Government often had to take decisions on very small-scale schemes (HoC 2006).

decision-making. The UK Government Sustainable Development Strategies of 1999 and 2005 aim *inter alia* to protect the environment and prudently use natural resources (e.g., DETR 1999,8). However, the governmental commitment to sustainability does not ensure “a strong emphasis on the environmental dimension of sustainability” (Kidd 2005,270).

Regarding commitments in transport sector, the Transport White Paper “The Future of Transport: A Network for 2030” (2004) reflects the spirit of sustainability concept and recognises a strong relationship between the transport development and the environment. Sustainability principles for transport planning are also set out in the PPG13 on Transport. The SEA guidance for transport plans and programs provides a specific advice on SEA for transport initiatives according to the EA of Plans and Programmes Regulations 2004. It “integrates the SEA Directive's requirements with existing transport appraisal processes - the New Approach to Appraisal (NATA)” (DfT 2004,1).

Additionally to SA and SEA, the “UK Government is strongly committed to the principle of...HIA” (Arden 2000,4). In the absence of regulatory requirements for HIA, the UK Public Health White Papers, e.g., “Saving lives: Our healthier nation” (1999) and “Choosing Health” (2004), promote HIA for all major new policies nationally and locally.

1.1.1.3. Socio-economic preconditions for SEA/follow-up

Transport policies are prepared against a problematic socio-economic background in the Counties of Merseyside¹⁷¹ and Lancashire¹⁷². The socio-economic problems include deprivation, acute social inequality, industrial decline, high unemployment rates, decline in the population, limited access to housing, jobs, and services and a need to regenerate urban areas (especially in Lancashire). The sub-regions' priorities are regeneration and sustainable economic development including assurance of healthy and safe environment and protection of the natural environment. In this context, funding for SEA/SA and HIA (in Merseyside) as a percent of the overall LDFs and LTPs funding is usually secured by the local authorities through multiple sources such as Department for Health (DfH) with regional strategic and local health authorities, DETR, Health Action Zone program (in Merseyside) and self-financing (Arden 2000).

To sum up, England has a shared and partly decentralised political-administrative polity with a hierarchical decision-making, in which SA and para-SEA approaches have been practised since the early 1990s. There is an extensive guidance on SEA/SA/HIA; however changes in it and especially changes in planning guidance are confusing. Presently, the political commitment to SEA and preconditions for the integrated SEA-SA-NATA approach exist at all higher planning levels. The developing state of the North West economy aimed at the economic regeneration and growth may not always pay sufficient attention to the environmental dimension of sustainability. The positive socio-economic aspects are the political stability in the region and the presence of SEA/SA on the political agenda as expressed in the regulations and policies. Nonetheless, securing resources for conducting SEA/SA is challenging.

1.1.2. Formal provisions for SEA/follow-up

1.1.2.1. Legislation, regulations, and formal roles division

The basic legislation that requires SA/SEA and SA/SEA monitoring and reporting includes:

¹⁷¹ Merseyside continues to have higher unemployment rates than the UK average with some parts of Liverpool, St. Helens and Knowsley falling within the 10 % of the county's most deprived areas. Merseyside has seen a drop in population in the recent decade from 1427000 in 1993 to 1364000 people by 2003 (MP 2006). Liverpool is the economic center attracting workers from the rest of Merseyside and from the wider economic areas.

¹⁷² In Lancashire over 15% of the area's communities ranked within the poorest 10% in England, unemployment rates vary from district to district being higher and lower than the UK average. Lancashire is rich in biodiversity: 95% of its coastline designated as internationally important for its nature conservation; 2 National Nature Reserves; 70 Sites of Special Scientific Interest; 20 Local Nature Reserves; over 1,200 Biological heritage Sites and 63 Geological Heritage Sites; 2 Areas of Outstanding Natural Beauty (JACSP 2006).

- the Environmental Assessment of Plans and Programmes Regulations 2004¹⁷³ (that transpose the SEA Directive to the UK national legislation),
- the Planning and Compulsory Purchase Act, 2004, and
- the Town and Country Planning Regulations 2004 (Local Development) and amendment of 2008¹⁷⁴, the Town and Country Planning Regulations 2004 (Regional Planning)¹⁷⁵ and the Town and Country Planning (Transitional Arrangements) (England) Regulations 2004¹⁷⁶.

Table I-1 summarises the aspects of these statutory instruments in reference to SA/SEA, monitoring of and reporting on SA/SEA and planning initiatives, and formal actors.

Table I-1 Summary of formal provisions on SA/SEA/EA, their objects, monitoring and reporting and actors' roles, England

<i>Legislation/ regulation (SEA /SA)</i>	<i>Requirement for SEA/SA follow-up</i>	<i>Formal distribution of roles</i>
The EA of Plans and Programmes Regulations 2004	Requires EA of plans and programs Requires monitoring of the significant environmental effects of the implementation of each plan or programme in order to early identify unforeseen adverse effects and be able to undertake proper remedial actions	The responsible authority should conduct monitoring
The Planning and Compulsory Purchase Act, 2004	Requires SA of RSSs and LDFs Requires annual SA monitoring and reporting Requires annual monitoring and reporting for both RSSs and LDFs Requires to integrate SA monitoring and reporting with those of RSSs and LDFs (reporting on progress in implementing/revising a RSS including the sustainability effects of its policies)	RPBs must monitor the delivery of RSSs to see whether the purposes of RSSs are achieved LPAs must submit annual reports on LDFs and may be required to publish them RPBs have two more months, compared to LPAs, to submit their annual reports in order to feed the local monitoring data into regional reports
The Town and Country Planning (Regional Planning) (England) Regulations 2004	Requires annual monitoring and reporting on RSSs Specifies the contents and timeline of annual monitoring reports	RPBs must submit reports to the Secretary of State and must publish them on the website(s)
The Town and Country Planning (Transitional Arrangements) (England) Regulations 2004	States rules for modification and adopting of changes to plans/programs	Gives a framework of actors involved
The Town and Country Planning Regulations 2008 (LD) (Amendment)	Requires SA of Development Plan Documents	LPAs must submit SA report

1.1.2.2. Manuals, guidelines and guidance for SEA/SA/SIA

As mentioned, the relevant planning and SEA/SA guidance is abundant in the UK. The recent revisions and development of guidance have been inspired by a need to integrate SEA with the existing SA and to harmonise it with the EU SEA guidance. Table I-2 extracts SEA/SA/EA

¹⁷³ For the EA of Plans & Programmes Regulations 2004 see www.opsi.gov.uk/si/si2004/uksi_20041633_en.pdf.

¹⁷⁴ For the amended Town and Country Planning (Local Development) (England) (Amendment) Regulations 2008 see http://www.opsi.gov.uk/si/si2008/uksi_20081371_en_1#Backf00002; for the original Regulations 2004 see www.opsi.gov.uk/si/si2004/uksi_20041231_en.pdf.

¹⁷⁵ For the Town and Country Planning Regulations 2004 (Regional Planning) see <http://www.hmso.gov.uk/si/si2004/20042203.htm>.

¹⁷⁶ For the Town and Country Planning Regulations 2004 see <http://www.opsi.gov.uk/si/si2004/20042205.htm>.

requirements and monitoring and reporting provisions from the relevant SEA/SA guidance and planning and transport guidance in England.

Table I-2 Summary of guiding provisions on SA/SEA/EA, their objects, monitoring and reporting and actors' roles, England

Guidance/guidelines	Requirements	Formal distribution of roles
A Practical Guide to the Strategic Environmental Assessment Directive (ODPM <i>et al.</i> 2005)	<p>Advises on integrating SEA with SA and HIA</p> <p>Requires developing aims and methods for monitoring and responding to adverse effects</p> <p>Proposes SEA monitoring framework</p> <p>Provides quality assurance checklist for monitoring measures</p> <p>Suggests incorporating SEA monitoring into existing performance monitoring of initiatives</p> <p>Suggests expanding existing monitoring systems to include additional parameters</p>	<p>Responsible Authorities should specify who and when is responsible for monitoring tasks, incl. collection, processing and evaluation of data</p> <p>Responsible Authorities are encouraged to prepare for responses where adverse effects are identified</p> <p>Suggests different authorities to enter into agreements to share information and standardise monitoring methods</p>
<p>Sustainability Appraisal of Regional Spatial Strategies and Local Development Frameworks (ODPM 2005d)</p> <p><i>NB: Appendix 14 on SA Monitoring of this guidance and Appendix 10 on SEA monitoring of the above Practical Guide refer to and repeat each other</i></p>	<p>Emphasises the need to integrate SA monitoring with the statutory monitoring of RSSs and LDFs</p> <p>Explains how to integrate SEA with the existing SA</p> <p>Suggests that SA and SEA monitoring should answer the same questions: (i) Were the predictions of sustainability effects accurate?; (ii) Is the plan contributing to the achievement of desired SA objectives/targets?; (iii) Are mitigation measures performing as expected?; and (iv) Are there any adverse effects? Is remedial action desirable?</p>	<p>Responsible Authorities have roles similar to those in the Practical Guide above</p> <p><i>NB: Both this SA guidance and the Practical Guide to the SEA Directive list consultation bodies for SEA/SA process. The bodies to be consulted on the environmental questions are English Heritage, the Countryside Agency, English Nature and the Environment Agency. There are also "other", "specific" and "general" consultation bodies.</i></p>
Planning Policy Statement 11 (Regional Spatial Strategies) (ODPM 2004)	<p>Sets out the key policy requirements on the monitoring and review of targets for RSS/RTS</p> <p>Requires holding an annual public meeting to report on annual progress</p> <p>Sets out a community involvement scheme for revision of RSSs</p>	<p>RPBs should develop regional targets and indicators for monitoring and evaluating RTSs</p> <p>RPBs should involve local authorities in annual monitoring reports preparation</p>
<p>Regional Spatial Strategy Monitoring:</p> <p>A Good Practice Guide (ODPM 2005c)</p>	<p>Specifies contents and structure of annual monitoring reports for RSSs and LDFs</p> <p>Details monitoring and reporting requirements including SA/SEA monitoring</p> <p>Suggests several sets of indicators:</p> <ul style="list-style-type: none"> ➤ contextual indicators which relate to real world variables on which an RSS has only indirect influence or indeed no impact; ➤ significant effects indicators that are generated by the SA, and ➤ two types of output/outcome indicators: the national and regional ones <p>Envisions evaluation and review of both monitoring schemes and the initial strategies</p>	<p>Describes functions of key parties in the development of RSS annual monitoring reports incl. RPB and LPA</p> <p>Suggests arrangements for monitoring framework to facilitating the sharing and exchange of data and analysis between stakeholders</p> <p>Advises to create a regional monitoring group</p> <p>Requires arrangements to be made to ensure linkages between the production of the regional and local annual monitoring reports</p>
SEA for transport plans and programs (DfT 2004)	<p>Details how to carry out SEA for transport plans/programs</p> <p>Explains how to integrate SEA with NATA</p> <p>Supplements NATA, <i>which does not address</i></p>	<p>Responsible authority, in case of LTPs, the LPAs are in charge of SEA and monitoring</p>

Guidance/guidelines	Requirements	Formal distribution of roles
	<p><i>monitoring</i>, with a framework for monitoring including what, when, how and by whom should monitoring and evaluation be done</p> <p>Specifies good-practice principles of SEA monitoring, e.g., fit a purpose, be transparent, address the significant issues, etc.</p> <p>Suggests different <i>types</i> of SEA monitoring for e.g., managing uncertainty, improving knowledge, managing environmental information, and enhancing accountability</p>	
Planning Policy Statement 12: Local Spatial Planning (DCLG 2008)	<p>Sets out the key policy requirements for LDF monitoring and annual reporting</p> <p>Assures that if SA is conducted following the <i>A Practical Guide to the SEA Directive</i>, there will be no need for a separate SEA</p>	LPA's are accountable for LDF monitoring
Local Development Framework Monitoring: A Good Practice Guide (ODPM 2005a)	<p>Provides detailed guidance on how to monitor Local Development Documents (LDDs)</p> <p>Suggests monitoring of contextual, significant effects and local output indicators</p> <p>Advises LPA's to review their contextual indicators every five years, and significant effects indicators during the next SA/SEA</p>	<p>LPA's must submit reports to the Secretary of State and make them available to local communities both in hard copy and online</p> <p>Key stakeholders should be involved in the development of monitoring frameworks, etc. in the survey and evidence bases</p>

Overall, the SA/SEA guidance establishes a solid reference pool for follow-up supplemented by the monitoring, evaluation, and reporting provisions in the regional/local planning guidance. The SA/SEA monitoring provisions set out for transport initiatives also provide for a specific input for LTPs.

1.1.2.3. Enforcement and compliance mechanisms

Despite the existing guidance for SA/SEA and their monitoring, there are no clear formal provisions for enforcement. According to Fischer (2007,79) due to the lack of formal requirements and no practical support, e.g., by an environment agency or ministry, enforcement of SA/SEA has been weak in the UK and the quality of the assessments varied widely prior to the SEA Directive coming into force. Presently, this drawback is being attempted by establishing extensive consultation platforms with the public and 'consultation bodies' (e.g., ODPM 2005d).

1.1.2.4. Formal distribution of responsibilities

Table I-1 and Table I-2 summarise the roles and responsibilities of parties involved in developing strategic initiatives and SA/SEA. The regulations and guidance require the responsible authorities to implement monitoring and reporting for a strategy and its SEA/SA. They also require the monitoring schemes to detail monitoring schedules and responsible persons. They propose the generic actors' frameworks for monitoring activities and suggest that these should be tailored to a specific initiative.

1.1.3. Formal compliance with sustainability principles

Since the early 1990s, the UK Sustainability Strategy (1994), sectoral sustainability strategies¹⁷⁷, white and green governmental papers, national and regional planning guidance and strategies, and the sequence of guidance on sustainability and environmental appraisal¹⁷⁸ created a tradition of incorporating sustainability in planning and assessment.

¹⁷⁷ For example, "Biodiversity: The UK Action Plan" (1994), "Climate Change: The UK Programme" (1994) and "Sustainable Forestry: The UK Programme" (1994).

¹⁷⁸ The early Government guidance "Environmental Appraisal of Development Plans: A Good Practice Guide" (1993) encouraged to carry out an environmental appraisal.

Sustainability is one of the key themes of the MerITS, LTP1 and LTP2 and Lancashire LTPs, reflected in their objectives and targets. Both the contents of the Mersey and Lancashire transport strategies and the approach taken in the HIAs (Mersey) and SEAs/SAs were guided by the sustainability principles. This is repeatedly stated throughout the strategic documents and is confirmed by all interviewees. Furthermore, the interviews suggest that a joint work of the Merseyside Partnership, the Liverpool Heath Authority, other authorities, partnerships, consultation bodies, NGOs and the public has helped safeguard the sustainability orientation of the transport strategies. The Lancashire interviewees convey a similar message about a collective effort of the authorities, stakeholders and the public to consider sustainability issues. Overall, there is an explicit compliance of the transport strategies' objectives, targets and actions with the officially accepted sustainability principles in the UK.

1.1.4. Possibility to incorporate SEA follow-up results in subsequent planning (adaptiveness)

The UK planning and SEA/SA guidance documents pay a specific attention to the possibility to incorporate the monitoring and evaluation results into future strategic initiatives at the regional and local levels. They also emphasise the need to revise the initial goals and targets of initiatives at the end of the planning period as well as to revise monitoring indicators of both a SEA/SA and its initiative. They also define how to adopt and amend the strategic initiatives (e.g., LDFs) based on the results of annual monitoring and progress reports (Table I-2). The amendments/revisions of strategic initiatives are also tiered to the planning cycle and to the (central/local) budgets for the next financial year. Thus, there are opportunities to feed forward the results of SEA/SA follow-up alongside the strategies' performance follow-up to future cycles. The formal provisions allow for a certain reflectivity of the LTP planning framework, namely, adaptive measures can be taken annually or more radically on a 5-year basis. They also provide for a growing adeptness in the LTPs planning and SEA/SA practice.

1.1.5. Integration of SEA follow-up with existing monitoring systems

The publication of SEA/SA guidance for development plans (2005) and for transport initiatives (2005) in particular has positively influenced an 'exterior' integration of monitoring frameworks. Prior to the transposition of the SEA Directive, less consideration was given to supplementing and integrating the performance monitoring of transport initiatives with the existing monitoring schemes. However, it is not to say that such kind of integration did not exist. Rather in e.g., Merseyside it has become more systematic and well organised during the LTP2, as the interviews and documents testify. Earlier "monitoring of air quality in Merseyside was done anyway by the authorities", then "it was shaped according to the LTP requirements" and "it is particularly tailored now to the LTP2, especially when Liverpool has AQMAS"¹⁷⁹ (1F). During the MerITS, the health authorities were collecting the information from the installed diffusion tubes, the local authorities were separately collecting data for their environmental strategies, and the existing national monitoring stations were measuring background data (e.g., on traffic rates) in Merseyside. All these sources have been partially integrated in the MerITS realisation with the support of MerseyTravel. The interviewees acknowledged that there was a practical reason, namely to save money and labor, behind the early attempts to use the existing sources, whenever they existed (e.g., 1C, 1F, 1A), however very few people were concerned with this.

In Lancashire, the LCC LTP2 SEA suggested using the existing system, such as the air quality monitoring conducted by the local authorities on behalf of DEFRA during the last decade (Edwards 2005). Proposals for a closer integration followed the declaration of an AQMA in Lancaster City.

The Blackpool LTP2 SEA indicated a possibility of feeding the monitoring framework into others being implemented in the Blackpool Council and in the region and of using information collated by statutory consulters who have monitoring frameworks in place (Hyder Consulting 2006a,109). Blackpool also has an AQMA, which needs to be viewed in the LTP2 delivery context.

The Blackburn with Darwen LTP2 SA proposed to rely on the existing monitoring arrangements and policy feedback loops wherever possible (BDBC&C 2006b). The APRs were stressed as vital

¹⁷⁹ Air Quality Management Areas.

mechanisms for monitoring the LTP2 and providing two feedback loops into the LTPs, namely as the assessment of performance to inform the development of proposals for the next year and as part of the evidence base for the 5-yearly LTP review (BDBC&C 2006b).

During the first LTPs the integrated monitoring potential was only developing as not many (sufficient/relevant) opportunities existed to rely upon. When the LTP2s were produced, the data collection process from external sources became more integrated with the LTP2s implementation. While developing the monitoring frameworks for the Merseyside and Lancashire LTPs, the teams of planners and SEA experts¹⁸⁰ worked to identify any relevant existing sources of information that they could draw on. The SA/SEAs/HIA for the four LTP2s sought to recommend monitoring data sources whenever possible.

1.2. Process dimension: Case 1 in Merseyside

The process SEA follow-up dimension encompasses 14 variables analysed based on the documents and interviews in Merseyside (see also Chapter 6). When applicable, these variables are examined not only in terms of the extent to which they have been envisioned, but also in terms of the level of their implementation/performance (for grading see Appendix J and Chapter 6).

1.2.1. Statement of SEA follow-up rationales and goals for different planning tiers and decision-makers

In the Merseyside LTP2 setting goals for SEA follow-up has been basically accomplished through a command-and-control approach. The legislation and guidance determine the need and rationales for monitoring of LTPs and SEA/SA. The first priority of the LTPs tends to be a consistency with the internationally and nationally agreed goals for follow-up. Then the regional, sub-regional and finally local priorities for follow-up are considered. Thus, the SEA/HIA follow-up framework specifies nearly the same follow-up goals and rationales as the government does. These simultaneously constitute the goals and rationales for performance monitoring and management of the LTPs, the progress on which is to be annually reported. Therefore, there is not much space for flexibility in terms of defining goals and rationales for follow-up, however there is enough space for feeding the local follow-up priorities into the general LTP follow-up framework.

It is noteworthy, that the goals of SEA/HIA follow-up have originally been of a wider scope than those of the LTP2 monitoring framework. They have aimed not only to explore whether the LTP2 achieves the planned progress, but also to identify adverse effects of the LTP2 delivery, to fill in any gaps in baseline, reduce uncertainties and test the accuracy of predictions (Maunsell 2005b). However, those goals have not been explicitly stated as purposes of the LTP performance framework¹⁸¹.

1.2.2. Early screening and scoping for SEA follow-up

A need to prepare SEA/HIA follow-up monitoring schemes is stipulated by the UK SEA/SA guidance and regulations; therefore, no screening as such has been conducted. Setting the boundaries and identifying the issues to be covered in the SEA/HIA monitoring framework of the LTP2 was largely accomplished at the scoping stage of the SEA/HIA. The results of SEA scoping were used to relate the scope and contents of SEA/HIA follow-up to the objective of the SEA/HIA and the LTP2, to the identified significant impacts and to the baseline data. There is an overall consent that the SEA/HIA scoping and the SEA/HIA process in general has helped to set out a follow-up program, to define the uncertainty areas and gaps in baseline data for further study, the information sources needed for monitoring, timing for monitoring and evaluation, and potentially responsible agencies (Maunsell 2005b). The 'SEA and HIA monitoring framework' proposed in the SEA/HIA report is a sort of a

¹⁸⁰ The integrated SA and SEA for the Blackburn with Darwen LTP2 was prepared in-house; SEA/SA for Merseyside and LCC were prepared by the same external consultant-Faber Maunsell as well as other consultants; the Blackpool commissioned an external consultant - Hyder Consulting - to carry out an SEA for its LTP2.

¹⁸¹ It might be presumed that performance monitoring prioritises the implementation of the LTP over SEA/HIA follow-up and transforms its goals partially losing the environmental orientation.

‘Terms of Reference’ for SEA/HIA follow-up, which needed to be further developed in the LTP2’s delivery and monitoring framework.

1.2.3. Specified design, methods, and coherence of SEA follow-up steps: formulation and implementation

1.2.3.1. Monitoring

The type of SEA/HIA and LTP monitoring can be characterised as a combination of all least two types of monitoring tracks described in Chapter 2. In terms of type B monitoring, the Mersey LTPs envision performance follow-up of implemented activities. In terms of type A, several monitoring directions have been chosen: i) monitoring of the trends and assumptions is envisaged for major revisions on the 5-year basis and for minor annual revisions, ii) objective-achievement monitoring measured against targets is set out, and iii) although ‘monitoring adverse impacts’, implying an area-wide monitoring, is mentioned no concrete measures are identified; instead a ‘target-free’ monitoring is proposed for cross-cutting areas covered in the LTPs and exposed to the external influence. In terms of type C, monitoring of the relevant activities of other strategies is not formally envisaged, however there is some cooperation among the horizontal strategies in the county and in the neighbouring counties/districts (e.g., Lancashire, Cheshire, see also ‘cooperation’ section below).

SEA/HIA and environmental component. Drawing on the comparison, more than a half of the recommended SEA/HIA monitoring indicators are the same as the LTP2 performance indicators. It is unclear how another half, which also covers significant impacts indicators, has been addressed in the LTP2. Out of the 41 LTP performance indicators, 26 represent those recommended by the SEA/HIA; others presumably stem from the local needs, the DfT guidance and Best Value Performance Indicator guidance¹⁸². Only 3 indicators directly (explicitly) relate to the environment: pollution concentrations within AQMAs¹⁸³, estimated transport related emissions (tonnes/year) of CO, NOx and PM and environmental standard of bus fleet (see Maunsell 2005b; MP 2006). The first two are ‘target-free’ indicators, whilst the latter is measured against the target. The SEA/HIA mitigation measures were in part integrated in the LTP2 design and the Partnership committed to fulfilling some mitigation recommendations during the LTP delivery, e.g., developing EIAs or Appropriate Assessments (AA) for major schemes, as needed. No separate EMP for the LTPs has been adopted.

Methods and schedules with people responsible for monitoring are described in a 180-pages long appendix to the LTP2. Methodologies for indicators are developed centrally (especially for mandatory ones¹⁸⁴), locally or proposed by independent auditors (see MP 2006). Different monitoring frequencies are determined for various indicators, e.g., every 6 months or 3 years, alongside monitoring actions and main risks to implementing monitoring. Collection, aggregation, and reporting methods are furthered taking into consideration different sources and databases, multiple partners and stakeholders¹⁸⁵.

Implementing monitoring. The only environmental indicator for the MerITS was CO2 emission level, which according to some interviewees was not monitored under the assumption that the best scenario chosen was environmentally friendly as such (1C)¹⁸⁶. Based on the HIA (1998)¹⁸⁷ of the MerITS bid,

¹⁸² This guidance is issued by the national Audit Commission www.audit-commission.gov.uk/performance and provides data for the national statistics.

¹⁸³ The Liverpool City Council together with the LTP partners developed an Air Quality Action Plan to address the AQMA management issue. It is an Appendix to the LTP2 and is a part of Progress Report 2006-2008.

¹⁸⁴ The methods for mandatory indicators monitoring is specified centrally and all districts have to comply with it in the same manner or outsource a consultant if they cannot manage with the own forces.

¹⁸⁵ “The local transport planning group, which is the working group, decides which indicators are to be measured; afterwards, the details as to how to do that and when and by whom are up to the thematic sub-groups. Each sub-group has people from each district chosen by the themes, e.g., travel groups involves people dealing with cycling and walking programs for each district, etc. They measure the indicators in each district and report to the coordination group” (1C).

¹⁸⁶ It was not possible to get reliable responses on whether the monitoring methods were specified in the MerITS and properly implemented. According to other interviewees, CO2 may have been monitored based on proxies

adjustments were integrated in the strategy and some mitigation follow-up was conducted and taken over by the LTP1. During the latter, conformance follow-up with the national standards was the predominant form of follow-up. Its HIA built on the success of the MerITS' HIA (Arderm 2000) and was integrated with the implementation. HIA follow-up for the LTP1 was just satisfactory: out of 57 HIA recommendations, which covered many commonly addressed areas of SEA, e.g., air quality, noise, social inclusion, provision of healthy and safe environment, only 14 were fully implemented, while 23 were not implemented at all.

The monitoring reporting circle was launched during the LTP1 (see a simplified scheme on [Figure I:1](#)). According to it, the authorities collect some data internally and/or receive data from the DfT, Merseyside Police and other local authorities and services. They transfer the data to the Mott McDonald¹⁸⁸ representative, who reports on the indicators to the Coordination Group. The Group comprised of the representatives of partners discusses the data, evaluates and considers it for the further actions. It needs to approve of the data, and can ask for additional information in case MIS/Mott McDonald has it or require more research, prior to allowing the consultant to fill out the corresponding data sheets in annual delivery reports. It is only during the LTP2 when this cycle started to work properly¹⁸⁹ and has been improved.

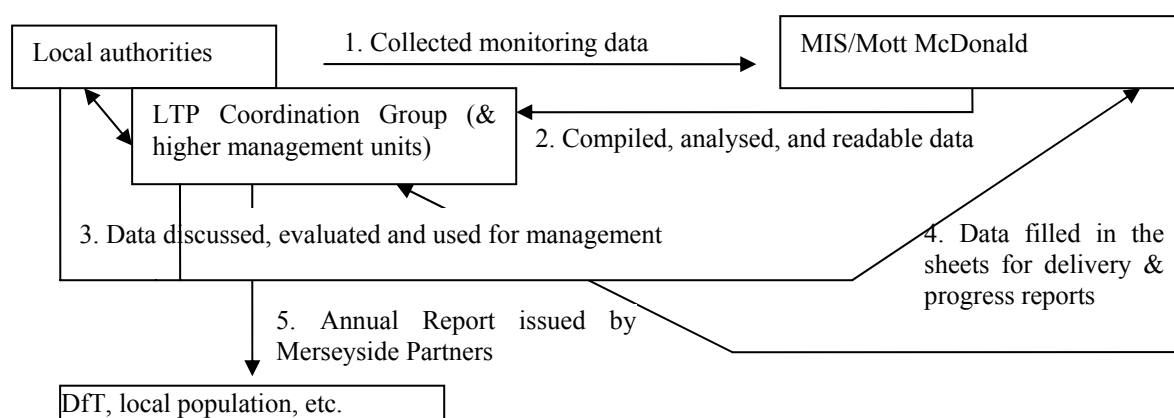


Figure I:1 Simplified SEA follow-up data processing circle

(1F) or monitored not within the MerITS follow-up program, but rather by other departments (1J) or through a general monitoring for the Mersey region by the governmental offices (e.g., other local authorities, DEFRA, Environmental Agency). Overall, the MerITS was the best alternative with the most favourable trajectories, the follow-up to which should have included “environmental management measures...focused on sensitive residential and retail locations” (MerPTA 1993).

¹⁸⁷ The interviewees perceive the evolution of SA, SEA and HIA in the following way: the sustainability principles were partly integrated in the MerITS package. Considering this, the HIA looked at various things, e.g., pollutants, impacts of cycling and walking. Later SEA borrowed these things from it. When designing the MerITS the initial assumption was to set up a strategy that could be justified on environmental terms but there was no follow-up to find out whether it was really achieved. So, CO₂ was not monitored, nor were all of the other indicators monitored. That is not to say that monitoring was completely absent. The most important indicators for the implementation of the MerITS were followed up, but the environmental follow-up was not the priority. Besides, the Partnership was not in position to afford this due to the lack of resources. It started to regularly conduct measurements only during the LTP, and only lately-over the LTP2-the Partnership could claim that they more or less properly monitored the indicators important for the LTP. E.g., at the time of MerITS there were only occasional Air Emission Measurement stations, e.g., in the city center of St. Helens that were able to pick up some specific particulates and were involved in the activities other than transport ones (1J, 1E, 1F, 1D).

¹⁸⁸ MIS was formed when the Merseyside was a single council in order to collect Mersey-wide data. After it split up, MIS remained as an information service and continued gathering and storing data, including Mersey databases and censuses. Later it was taken over by Mott McDonald, which had designated people for different types of data gathering and management and who assisted the authorities in monitoring activities.

¹⁸⁹ There is a strict hierarchy in reporting on indicators, neither individual authorities nor the consultants have a right to report on those to the regional or national levels. Only in case a request is made from the above level for the particular data, it can be provided following the consent of the Mersey Partnership.

Overall, a mixed type of SEA/HIA follow-up and LTP monitoring is envisioned with the methods, timescales and schedules being basically determined.

1.2.3.2. Evaluation

The type of the SEA/HIA follow-up evaluation can be viewed as a combination of four evaluation tracks, i.e. impacts evaluation, goals-achievement, performance, and conformance evaluation (Chapter 2; area-wide evaluation is not explicitly addressed). The data processing and evaluation is logically based on the data collection methods, institutions and timescales.

The methods for structuring, analysing and appraising the monitoring information are generally present following the monitoring instructions on corresponding indicators. Although the methods tend to be as thorough as possible, in some cases they are not fully described, in other cases references are made about a possibility to obtain data processing instructions from certain locations, and in the other cases methods involve using some support tool, e.g., EMIT software for manipulation and graphical display of collected data. For many indicators aggregation of recorded data is done externally, however the major responsible consultant is Mott McDonald¹⁹⁰, who collates all monitoring data together after it has been reviewed. Review of initially collected data is conducted by the assigned officers from the LTP implementers, different partner-organisations and departments. Review periods are specified and vary from several months to 2-3 years based on the monitoring data supply. Thus, after the first review is done, mostly within the monitoring data collecting body, the data is sent to Mott McDonald who interprets it and reports to the district authorities and to the LTP process. The district authorities often involve other consultancies to do evaluation, which then is also fed into the LTP process. Those evaluations alongside the interpretation and data sheets from Mott McDonald become a part of the overall evaluation by the LTP management units that is conducted for annual reporting. No complaints about data compatibility between the external and internal monitoring and evaluation formats have been mentioned.

Generally, the data processing and evaluation methods and timescales are specified as well as the people responsible for the first review at the sources and for the final aggregation, interpretation and reporting.

1.2.3.3. Management

A distinction should be drawn between operational and middle-to-top levels of SEA/HIA follow-up management. The operational management is concerned with making decisions based on the first-hand SEA/HIA monitoring and review results. It needs to give explanations if the actual effects differ from what was expected. It can make minor decisions about what is to be changed/improved in the monitoring or evaluation technique. Also, some districts' operation units take immediate decisions based on the environmental scanning or/and quick assessments of the data from the live-monitoring systems. For example, Wirral's Closed Circuit TV (CCTV) cameras enable visual monitoring of the traffic at 110 locations in Wirral and its Urban Traffic Control (UTC) computer system controls the traffic signals to maximise the optimum operation of traffic flow around the borough (Figure I:2). The staff of the Wirral's traffic control center do not only take the immediate decisions, but also suggest modifications to the LTP programs (Figure I:3), e.g., as to how to improve the junction, based on their day-to-day work and interpretation of the congestion monitoring data.

¹⁹⁰ The role of MISS/McDonalds is rather significant for the quantitative evaluation in SEA follow up. It collects data on indicators from all districts and prepares datasheets that can be later used for accounting, reporting, modelling trends, etc., also give recommendations on further monitoring steps.



Figure I:2 “Variable Message Sign” to advise drivers on traffic changes, Wirral, Mersey, UK

Source: courtesy of IJ

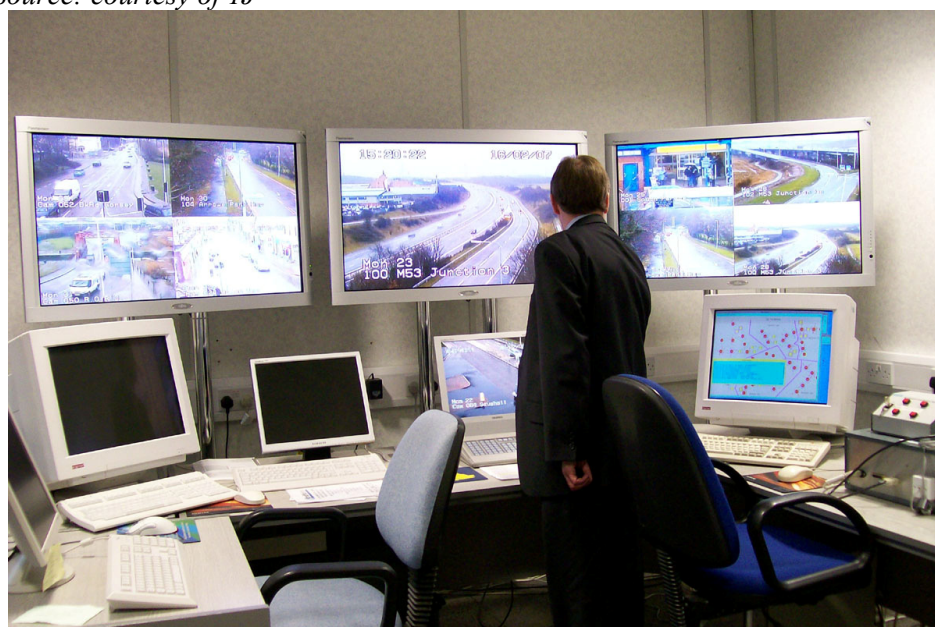


Figure I:3 Wirral Traffic Control Center, Mersey, UK

Source: author's photo

At the higher level, the evaluation data are used by the district authorities for their district-wide performance management and by the LTP Coordination Group. The latter has a limited decision-making power and mainly makes final stage decisions on performance shortcomings and budget performance (MP 2006). The technical issues are examined by the special Merseyside District Engineer Group. Both Groups report to the Strategic Transportation and Engineering Group, which takes strategic decisions on the LTP. It then reports to the Strategic Transport and Planning Committee which is responsible for the annual progress reports. The decisions taken by the groups at all levels are agreed with the local authorities.

The types of management in the SEA/HIA follow-up and LTP performance management can be described as a combination of Type II. ‘direct implementation actions’ with Type III. ‘activities controlled by a PPP’. There is not explicit evidence of management of Type IV. ‘other activities affected by a PPP’ (Chapter 2). How SEA/HIA follow-up management performs in terms of Type I. ‘decisions on revising a PPP’ will be clearer when the LTP2 are revised and replaced in 2011.

Thus, according to the documents and interviews the LTP management scheme makes use of the monitoring data and evaluation findings for both short- and longer-run decisions/actions.

1.2.3.4. Communication

The ‘dissemination follow-up’ in the Mersey Transport strategies includes submitting and online publishing of annual progress reports and maintaining a public Transport, Health and Environment forum. The latter meets regularly to informally discuss the issues of interest within the LTP2¹⁹¹. Communication is focused on the public and interest groups and occurs via the mentioned public forum on the official Merseyside Internet website designed for the LTPs and SEA/HIA preparation and discussion. Using the same Internet platforms throughout the strategy life-cycle supports the continuity of information flows.

Apart from being informed about the LTPs progress, the public is involved in the surveys conducted for the LTP2 performance monitoring including HIA/SEA monitoring indicators. Complaints and opinions of people are attempted to be considered and commented upon by the LTP Support Unit. Some LTP programs have communication components, e.g., the TravelWise program has a separate ‘communications program’ for stakeholders involving (bi-) monthly newsletters, releases to appropriate media, etc.

Annual reports have to be submitted to the DfT, while monitoring data and progress reports on Air Quality Action Plan should also be sent to DEFRA. A system of internal reporting within the Merseyside LTP governance involves reviewing the reported programs and performance indicators by the LTP Partnership every six months. Implementing units at middle-to-top levels, the operation LTP Support unit and the across-partnership sub-groups have to meet regularly every 4-8 weeks to manage the delivery. Performance information is transferred from the lower operation layers and processed so that different level of detail is communicated during those meetings. Also, public meetings are conducted every six months to share the review findings (1 C, 1G).

The reporting task of the LTP implementers is hardened by the government changing the guidance nearly every year, so that each year the annual report has to meet different variables (1A, 1B). Also, guidance for the summery delivery report for the LTP1 was changed a lot. That being said, part of annual reports are elaborated by each district individually and by thematic sub-groups with support of the Mott MacDonald MIS, and then submitted to the Coordination Group and upper level management forums for compiling, editing and approval (Figure I:1)

The implementers of the LTP have different views as to whether annual reports on the LTP2 progress are of interest to the wider public. Some suppose that there is rather low interest from the population unless some issue directly relates to inhabitants¹⁹². The majority indicates a growing interest of the public over the last several years and states that the level of public participation has improved during the LTP2, which could have hardly been possible without the consultations and surveys of the LTP1.

1.2.4. Integration of SEA follow-up with the strategy implementation

During both the MerITS and LTP1, the overarching idea was to integrate the HIA recommendations in the transport strategy performance. For the LTP2, combining SEA/SA monitoring with the plan’s

¹⁹¹ There is also a Public Transport Users Group (<http://www.letstravelwise.org/public/public-transport-user-groups.html?mode=movenav>), which is open to public comments and feedback.

¹⁹² To test this supposition, the author has informally interviewed two randomly chosen persons (this was unforeseen by the research methodology). So, ordinary middle-income and middle-aged inhabitants of Liverpool are aware of the air/noise conditions in Liverpool, yet they never read the LTP1 documents. They tended to judge about the environmental situation in the city based on property costs: higher prices imply better environmental conditions. The knowledge of performance of transport strategy is restricted to the information heard/communicated by colleagues at work. They never participated in Transport Forum. The only contact with the strategy was when one person (a car owner) called the LTP support unit to complain about a big pit on the road near the house. The person was promised that the problem would be solved, however six months later the pit was still there.

performance monitoring has been required by both statutory regulations and guidance. In line with those, there is an ‘interior’ integration of SEA follow-up with the ongoing strategy performance monitoring and management reflected in the routine activities, annual actions plans and progress reports including expenditures.

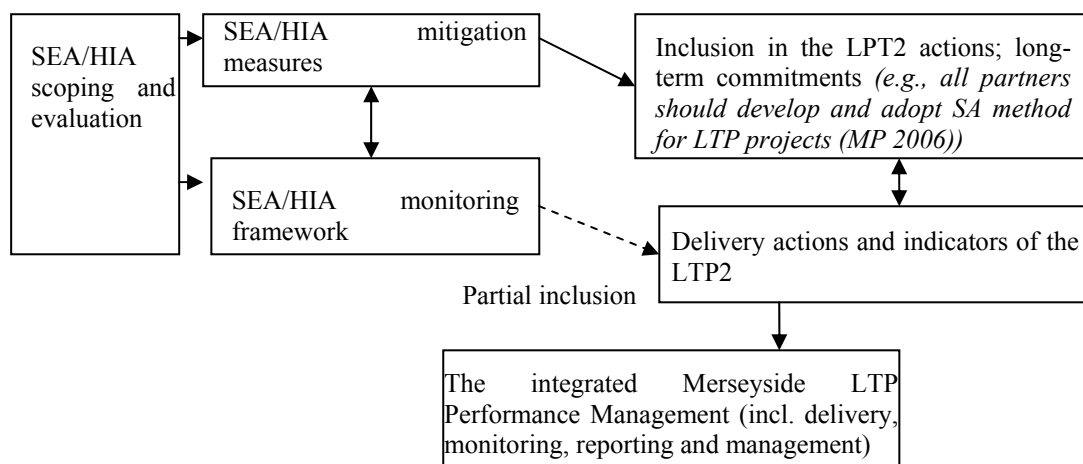


Figure I:4 Formally integrating SEA/HIA follow-up with LTP2

According to both the interviewees and documents, the mitigation measures and monitoring recommendations of SEA/HIA are incorporated into the LTP2 by merging as much as possible with its integrated performance management (Figure I:4). These are also coordinated with the internal environmental policies of Merseyside Partner-councils and the accepted international environmental management standards. E.g., Merseytravel and Wirral’s Technical Service Department, which leads the LTP2, run EMS (ISO 14001) and this practice spreading across other Merseyside partners. This sort of follow-up integration is close to the ‘holistic integration’ mode described in the SEA literature, while the SEA/HIA and the LTP2 integration resembled a classical ‘concurrent model’ (Chapter 2).

Overall, the performance management of the LTP2 has accommodated the major part of the SEA/HIA recommendations. It has (too) smoothly matched the already proposed indicators of the LTP2 and has become a part of the corporate monitoring of the Partnership and environmental policies of the Partners. How other SEA/HIA indicators have been addressed is unclear.

1.2.5. Consistency of SEA follow-up targets and standards with those of upper, low, or horizontal strategies and policies (Explicitness of tiers)

The targets set and standards referred to in the MerITS and LTP1 were consistent with those in other related strategies. This was done out of a practical need to jointly cope with the strategy/policy vacuum at the regional level. Since all districts participated in the preparation of transport strategies, they managed to successfully connect the targets and standards of transport plans with the districts’ and shared priorities. Presently, when revising other programs, the districts conduct a consistency test with the objectives and major actions of the LTP2.

With the introduction of a regional planning tier and SEA, the environmental and health follow-up has taken a firmer and clearer position in the planning hierarchy. For example, the targets and objectives of the RSS have been informed by the national strategies and in turn have informed the LTP2 and its SEA/HIA. The envisioned SA/SEA follow-up to the RSS and its monitoring framework have explicit reference to those of the LDFs, including LTPs (GONW 2008b). Overall, the LTP2 SEA/HIA follow-up targets and objectives are consistent with those of the (i) lower LTP programs and actions, (ii) subsequent horizontal strategies, and (iii) regional strategies.

1.2.6. Assurance of open stakeholder cooperation and coordination including consensus building on SEA follow-up method and procedure

Cooperation within the LTP implementers. The corporate nature of the Mersey transport strategies is stressed throughout the documentation. Addressing environmental issues, such as climate change and the state of the environment, in a cooperative and organised manner have gained importance both on

the local and national political agendas, as long as those issues have become important per se. In this light, the public authorities consider cooperation and coordination of the LTP implementation actions crucial for their successful delivery and for environmental protection. For example, if implementation gaps in monitoring occur in some districts¹⁹³, other Partners continue monitoring and capture those gaps as a part of the LTP (1C).

Within the LTPs, the Co-ordination Group consisting of the representatives of all partners is in charge of managing the LTP, considering the ongoing issues, finding the solutions and coordinating the collaboration of the partners and implementation units. Formal LTP managers' meetings are instrumental as when people from different councils come together to share the progress news and issues, they advice, help and motivate each other.

Cooperation with private sector and the public. The private sub-contractors, like bus operators or construction companies, have interests that are more commercial; however, they have to fit in the financial schemes and comply with the targets set by the Merseyside partnership. NGOs were involved in the MerITS and LTPs preparation and several large scale opinions surveys were conducted to provide for socio-cultural baseline data.

Cooperation with other authorities/agencies. Within the LTP framework, the links with the Liverpool County council are well established. The representatives of the Health Department monthly meet with the transport officers (in-council) to share monitoring data and every two months with the LTP Coordination group to discuss management issues (1I, 1Ia). Informal networks are formed between the LTPs actors and the proponents of other strategies in the county. For example, the operation staff of the LTP2 and Liverpool City Region Development Plan (LCRDP), who collaborated during the plans' and SEA/HIA elaboration, continues conducting unofficial consultations. They discuss the problems and issues of implementation, including those specified in the SEA/HIA and set out for monitoring¹⁹⁴. The LTP implementers are also members of the regional traffic managers' forum.

Consensus building. It is unclear whether during the MerITS the stakeholders have discussed procedural and methodological approaches. For the LTP1 the process was rather unbalanced with the old guidance being a cause of dissatisfaction and ambiguity of the local authorities, who considered the nationally dictated targets unrealistic and aspirational¹⁹⁵. The second guidance was improved¹⁹⁶ and introduced a clearer framework setting out what and how is expected to be measured and what the rewards and penalties will be. The improved guidance was considered by the LTP Partners as a positive influence on the consensus seeking process for the LTP2 delivery and follow-up methods. A two-way approach to setting the follow-up scheme was used, i.e. the Partnership proposed 24 local indicators and targets as per the local needs and values in addition to the 17 top-down dictated ones¹⁹⁷. The SEA/HIA consultants were also engaged in the consultations on how to implement SEA/HIA follow-up when managing performance.

Leadership. The Merseytravel laid a foundation for a strong leadership and successfully shared this quality with other Partners. Within the clear organisational structure, the dedicated units of the Partnership are responsible for leading and coordinating at different management levels.

¹⁹³ E.g., "each authority does a certain amount of monitoring for overall traffic levels but the councils might lose a person doing this checking and counting work and then they might fail to do this for a while. But the idea is that we continue monitor to close the gaps as much as possible" (1C).

¹⁹⁴ It might be suggested that links and connections created during SEA/HIA are maintained if SEA/HIA follow-up is carried out. This is crucial for learning when implementing the LTPs as actors from different strategies even unofficially collaborating learn from and advise each other.

¹⁹⁵ E.g., as per ca. 18 % of the UK local authorities, that the LTP1 process was not or not at all adequate (see Atkins 2005).

¹⁹⁶ The DfT based the revision on the study report by Atkins commissioned by the DfT in 2005

¹⁹⁷ This became possible owing to the changes the Government did under the pressure of the local authorities, which required to reduce the number of the targets set centrally as their monitoring was using the larger part of the funding provisioned for monitoring and follow-up (HoC 2006,14).

1.2.7. Adaptability of a PPP and SEA follow-up

1.2.7.1. Feedback from subsequent decision-making to the initial strategy within the SEA follow-up scheme (organisational anchoring).

The LTP2 contains a number of major schemes and around 40 programs for action broken down into a series of activities. SEA/HIA recommendations made for many of those were taken into consideration within the LTP2 performance management framework. The feedback from the implementation of those actions and programs is usually fed back to the original LTP2 along the identified monitoring and evaluation tracks (see above). The operation units find it hard to link the current developments, including dynamic interactions with actual implementers of the actions such as bus operators, local business, colleges and hospitals with the original actions. They have to be very focused and selective when providing performance information and their judgments to upper organisational layers. Some interviewees also indicated that monitoring done for certain schemes was not often translated to the wider context and was not used to adjust the programs to what was happening in the overall strategy. For the mid-range management to consider the subsequent decision against the planned schemes represents an annual checklist exercise (e.g., 1J).

In general, the strategic planning context of the LTPs provides for a possibility of liaison with the subsequent decision-making. Given a well-defined sub-ordination, reporting and control structure developed for the LTP1 and improved for the LTP2, the organisational anchoring is rather clear-cut for the Mersey Transport strategies. The feedback from particular actions takes place, however it is not always systematically linked to the overall strategy.

1.2.7.2. Provisions for response measures to (non)deliberate situations or external changes

Deliberate adaptive management. At the street level, the performance monitoring and SEA/HIA follow-up include not only a tick-box exercise of fulfilled and not fulfilled activities, but also investigations of not properly fulfilled schemes, underlying causes and associated targets. An explanation should be provided as to whether the changes occurred due to e.g., the reduced adequacy of a scheme (e.g., re-location of cycling routes), unrealistic targets or consequences of environmental screening within districts. In fact, several cases of minor changes either in the major schemes due to environmental monitoring or in the monitoring plans due to unpredicted alterations in strategy have occurred. The LTP implementers practice routine adaptive management based on the information generated/existing within the Mersey Partnership and gained through other information channels and (un)official links with the related strategies. There are provisions in the LTPs' adaptive management framework for revising indicators and targets as per the planning and SEA/SA guidance. For example, during the delivery some targets were stretched as a result of delivery plan, e.g., the road safety strategy was successful in reducing accidents and this allowed the LTP to make targets harder (1E). Changes are frequent in routine implementation and are followed by corresponding changes in monitoring and management. The responsible LTP officers¹⁹⁸ make adapting efforts in making them consistent with the objectives of LTPs and commensurate with time and human resources. The annual revisions of the LTP usually serve to remove or add some actions on the mutually agreed basis.

Adaptive response to external triggers: According to the interviewees, the LTPs are quite sensitive to the external changes occurring in the political, economic or public environments. However, it is not always possible to immediately adapt to them due to a planning operation and budget cycle. Although no examples of influential external changes occurring during the LTPs implementation were recalled by the interviewees, they affirmed their commitment to respond to those in the environmentally friendly way and within the budgets available.

¹⁹⁸ In case of exceeded standards, emergency or non-compliance with objectives/targets, the responsible officers report to upper tiers, and the necessary sequence of response actions is instigated. Several *waves of decisions* usually follow such reports, from the epicentre of an emergence or some observed effect, i.e. non-compliance case or unpredicted change in actions, to upper and lower tiers to allow for harmonised measures (in many cases they are delayed).

1.2.7.3. Revision of SEA follow-up if the contents of a PPP changes

An essential role for this variable is played by the LTP implementers who seek to design and fulfil SEA/HIA follow-up in a way that its actions are responsive to long-term and short-term environmental changes. Revisions to the follow-up schemes are mostly triggered by the national guidance, rather than by changes in the LTP or some local political decisions (1G). The changes to the LTP can be made by the central Government and this will cause the revision of follow-up¹⁹⁹. Even if unexpected event happen during the LTP implementation, there are no extra budgets to address them, unless the representation of the Coordination Group or a sub-group turn to the district authorities to argue the case²⁰⁰ (see also ‘resources’ section below). If the LTP implementers consider that some important targets are missing/underdeveloped then additional research can be initiated, for which insignificant funding can be diverted from other schemes.

Thus, SEA/HIA follow-up to the LTP2 tends to be limitedly able to follow the changes in the LTP and environmentally assess them. This is due to the fact that a ‘change’ is a long, difficult and politics-dependent process and its assessment requires additional funding.

1.2.7.4. Revision of a PPP if SEA follow-up reveals unexpected impacts

Rather contradictory opinions have been received regarding this variable: some interviewees suggest that changes to the LTP are/can be done; others do not think it is possible or practicable. According to the former, if monitoring reveals some significant issues/changes, those need to be addressed in the next year (1H). Also, the priorities of both the LTP and of monitoring can be revised. However, it is not an easy process as to make moderate and major changes to the LTPs “implies huge political support” (1E). The latter group of interviewees contend that “it would be fair to say that whatever was the trend of the environmental indicators from year to year, this would not affect the delivery of the LTP and its actions. Maybe, environmental follow-up should change the LTP if it goes in the wrong direction and help change this direction, but it (and monitoring in general) is done for tracking the trends not for making changes” (1A). Another concern has been that “if monitoring reveals environmental problems that are the results of the economic growth in the district, whether or not the council will restrict is a question” (1H). Thus, on the one hand, it is less likely that changes to the original strategies will take place unless they are insignificant. On the other hand, if environmental problems are significant, the LTP can be modified accordingly²⁰¹.

1.3. Structural dimension: Merseyside

The review of nine variables of this dimension is based on the documents, consultations and interviews (for the grades for the design and implementation see Chapter 6 and Appendix J).

1.3.1 Statement of strategy (incl. follow-up) ownership and status of the proponents

The implementers of the LTPs are mainly the Mersey Partnership, i.e. the developers themselves. Mostly the same people held the controlling and reporting functions through the sub-groups to the Coordination Group and Executive Forums, who participated in the preparation of the LTPs and SEA/HIA (marginally). Traditionally, a specific attention has been paid to establishing and maintaining a functional partnership. A system of contracts and partnership agreements widely promoted in the region allows defining the status of other organisations, sub-contractors and

¹⁹⁹ E.g., a big element of the LTP2 was a MerseyTram development which was assessed in the SEA/HIA; however, it did not get funding from the Government and was removed from the final LTP2. SEA/HIA could not address this change, but follow-up scheme and mitigation measures needed to be adjusted to the change (1A,1B).

²⁰⁰ There is ‘emergency’ funding that could be sought from the Government in case of emergency, like flood, etc.; otherwise, the local authorities have to cope themselves.

²⁰¹ E.g., in 2006 the Air Quality action plan (an annex to the LTP2) was prepared for the Liverpool City including two AQMAs monitored for the LTP indicators. In 2008, the decision was taken to declare the whole Liverpool an AQMA as many highly polluted areas were identified (Annex 5, MLTPP 2008). Correspondingly, the direction and scope of action plan were revised, however the influence of the follow-up to the LTP was marginal as it only monitored the air quality and did not take any managerial decisions per se.

authorities that need to participate in the LTPs' implementation and SEA/HIA follow-up. The Mersey LTPs clearly define the status of proponent organisations as well as the ownership over the strategies including the collective or personal ownership for each performance monitoring indicator.

1.3.2. Clear timing and position of SEA follow-up

1.3.2.1. in relation to SEA and its strategy formulation and delivery processes

The position of environmental and health follow-up in the implementation process of the LTP1 was not straightforward being blurred by the performance monitoring. In the absence of separate strategic EMPs, there were a number of supporting background papers, reports and protocols prepared for environmental follow-up during the operation year and used for annual reporting.

Later, SEA has entered the existing transport planning cycle and is supposed to be practised further on a regular 5-year basis. The SEA Directive, the UK regulations and guidance direct the preparation of SEA follow-up and tend to locate it in a rather strict position in relation to strategy implementation process (depending on the sectoral belongingness). The placement of SEA/HIA follow-up in the LTP2 is rather well specified and matches the performance monitoring. Thus, setting out a relation between SEA and HIA, their follow-up and the LTP2 implementation is a standardised and mechanical-technical procedure based on a 'good' SEA and planning practice.

1.3.2.2. in the broader context of upper, lower, or horizontal strategies and their EAs

Determining the spatial position of SEA/HIA follow-up relates to the Mersey LTP 'tiering' and 'policy context' (see 'planning' section above). The latter helps specify the position of the Mersey LTPs' environmental and health follow-up amongst other related strategies, their SEA/SAs and follow-up schemes both at the same and other decision-making and planning levels. There are stronger administrative-planning linkages between the LTPs and higher, lower and horizontal strategies and much weaker linkages between the SEA/HIA of the LTPs and SEA/SAs of the related strategies. For example, while the LTP2 SEA/HIA explicitly refers to the SEA context documents and the related strategies, e.g., the RSS or LCRDP, it does not refer to e.g., the SA/SEA of the RSS. Correspondingly, no explicit links have been identified between SEA/HIA follow-up of the LTPs and the parallel process of SA monitoring of the RSS²⁰² or other regional strategies. However, the interviewees presume that follow-up to the LTP2 flows into the regional monitoring; yet the actual mechanism of this is not clear. Better integration is observable with the lower level strategies on which the LTPs have a direct bearing. The Mersey transport plans have traditionally had close bounds with other horizontal strategies. This assumes that positioning of the SEA/HIA follow-up within the implementation context of those strategies should be clear-cut. In this respect, both documents and interviews reveal some, often informal, information exchange links between SEA/HIA follow-up and implementation and follow-up to those strategies.

Overall, position of SEA/HIA follow-up in terms of the LTP delivery is clear and in line with the guidance/regulations. Its position in reference to the lower and higher strategies is rather clear-cut. Less clarity exists about the linkages between SEA/HIA follow-up and the related horizontal strategies and their EAs, despite good links set during the strategies' preparation.

1.3.3. Acceptance of roles and responsibilities and accountability in SEA follow-up

As mentioned, the responsibility tables determine the roles of different stakeholders from overall responsibility of middle-to-top managers to specific data collection, reviewing, reporting tasks of street level implementers of the SEA/HIA follow-up and LTP performance monitoring. This prevents the danger of 'diffused' responsibilities and responsiveness which is often a problem then moving from strategy preparation to its implementation and from its strategic level to ground level actions (Chapter 4). According to the interviewees, assigning the key tasks and functions for follow-up was

²⁰² When the MerITS and LTP1 were developed, no planning tier existed between them and the national policies. By the time of the LTP 2, a new level of RSS and RES was introduced, but the implementers were unclear about how the monitoring of the regional strategies would absorb the LTP2 monitoring.

usually agreement- or consultation-based, at least at the strategic and middle administrative level. It also included the discussion component about the usefulness of and need for environmental and health follow-up inherent to the LTP2 implementation. As a result, the ‘assignees’ accepted the tasks and roles and felt accountable for fulfilling them. A long corporate nature of Merseyside transport planning was another factor that underlay the overall acceptance of roles and promoted social accountability of the implementers. As a support mechanism, additional impetus was imposed on the regular implementers of the LTP2 performance monitoring by people with the overall responsibilities for the delivery, tracking and reporting processes (e.g., 1H, 1G). They coordinated and oversaw the timely and proper fulfilment of specific follow-up tasks.

On a whole, there is a cooperation-based distribution of both general and specific responsibilities in follow-up and an expressed acceptance of those by the relevant actors; however, the enforcing support mechanism is essential for keeping track of follow-up and performance monitoring delivery. Both corporate and personal accountability for conducting follow-up and for the LTP consequences is acknowledged.

1.3.4. Transparency for SEA follow-up delivery activities

One of the core principles of the Mersey LTPs is to involve the public in the LTP preparation and implementation (MP 2006). This is primarily done through a “bottom-up approach to LTP, i.e. when we consult with people about their priorities” (1J). People are engaged in the SEA/HIA follow-up through annual controlled surveys²⁰³ and bespoke consultations as well as direct contacts with different NOGs. They can also share their perspectives in terms of a general satisfaction with the LTP progress, including environmental and health conditions, personally on Forum meetings or online at the web-site.

Another transparency-supporting tool is the annual report, which informs the public about the decisions taken in course of the LTP implementation. The public and NGOs can access it online and request any additional environmental information as needed. However, due to only a slowly growing interest to the environment, if compared to e.g., road safety data, such situations are rare.

The implementers of the LTPs suggest that the mitigation measures proposed by the SEA/HIA, e.g., HIAs, EIAs and AAs for the major capital schemes set out in the LTP, will enhance transparency. Other contributing factors are a rather clear division of responsibilities for performance monitoring and follow-up activities and a commitment of the implementers to social accountability.

Overall, consideration is given to maintain transparent delivery of the LTP and SEA/HIA follow-up.

1.3.5. Commitment to SEA follow-up and acknowledgement of non-compliance

The commitment of the parties to environmental follow-up during the MerITS was quite low due to a lower awareness as it was mentioned above. The LTP1 tended to ensure compliance with the monitoring tasks; however, as the interviewees confessed if SEA existed at that time, follow-up to it would give a needed focus and commitment towards environmental targets would be higher. They also mentioned that they were motivated to do follow-up in the areas not required by the guidelines of that time, but then they faced the conflict of priorities and rationales (1A & 1B). The attitude of the Partnership towards SEA/HIA follow-up suggests that the LTP2 targets and objectives can be met satisfactorily only if SEA and HIA recommendations are fulfilled to the extent envisaged. Thus, all six Merseyside partners express commitment to the SEA/HIA follow-up measures as part of the LTP2 (MP 2006) and explicitly reassure their commitment to environmental protection in the LTP2 annual and biennial reports (MLTP 2007; MLTP 2008). A general feedback to the question about the overall commitment of the actors to follow-up can be summarised as follows: “We are committed to a proper job and we are professionals doing what we are doing!” (1H).

²⁰³ E.g., the surveys collect opinions on road condition, levels of congestion and whether the environment has improved or deteriorated since last year (1J).

However, the situation is not that simple. The Mersey LTP practice shows that commitment to a proper follow-up might be either internally maintained/promoted by a person or organisation or be stimulated through external incentives²⁰⁴ (public pressure, national awards, grants, etc.). It also relies on the possession of technical and financial capacities (1F) and is strongly linked to the recognition of the consequences of non-implementation of commitments. As a matter of fact, a non-implementation of the environmental and health follow-up requirements was equated to a general non-compliance with the goals of the strategies (1I, 1Ia) causing numerous upshots:

- failure to comply with international, national, regional, sub-regional and local policies,
- failure to conform with national standards, and as a result reduced governmental investments,
- deterioration of environmental and health conditions,
- loss of control over some high pollution areas (Liverpool's AQMAs),
- imposition of additional measures by Environmental Agency, DoT, DEFRA, etc.
- not (necessarily) accomplished mitigation measures,
- loss of image of the local authorities
- outbreak of opposition activities by local NGOs and public,
- no feedback from lower to upper level initiatives and thus weak follow-up, performance management and communication
- no (annual) revision of environmental elements, etc.
- no excellence awards for the LTP²⁰⁵ and no awards for good performance to those who implement the LTP actions and programs²⁰⁶.

To sum up, there is a clear commitment to accomplishing SEA/HIA follow-up as part of the LTP delivery and performance management. Factors that underlie this commitment are the understanding of potential threats of non-implementing follow-up schemes and internal motivation coupled with external incentives.

1.3.6. Competence (managerial) and adequate resources for SEA follow-up

The managerial competence for SEA/HIA follow-up implementation for both LTPs is basically in place. One of the concerns of the interviewees though is that competence is closely related to the resource availability and capacity-building. The LTP proponents who committed to conduct performance monitoring and report on the LTPs targets and objectives stress that their abilities might be put under risk if funding is not secured continuously. They raise funding to implement the LTP programs from various sources²⁰⁷, e.g., the DfT, European Objective one, local funds, however which sources and amounts are envisioned for follow-up actions is not specified in well-elaborated performance monitoring tasks schedules. Moreover, according to the interviewees there was no funding within the LTP2 envisioned for air quality monitoring. The interviewees mention that they often need to take money off the capital programs to do monitoring, which is however, a 'wrong' spending of money and large efforts are required to do regular and continuous follow-up. Each district

²⁰⁴ As one of the interviewees indicated, the environmental issues moved higher on the agenda and attracted more public and political interest, and correspondingly more attention from the LTP Partnership (1C).

²⁰⁵ For example, the excellent status granted by the DfT to both the LTP2 report and first year delivery brought an increase in funding of 25% (MLTP 2007).

²⁰⁶ For instance, a construction of the BlackBrook Diversion road scheme in St. Helens used 76% recycled content exceeding the government target of 10%. For this advanced approach to environment and sustainability, the scheme received several awards (MLTPP 2008).

²⁰⁷ No financial information was available on the MerITS during the field research. Although the staff rotation rate is not very high, many actors involved in strategy preparation and implementation have passed away or left the Partnership.

receives funding, of which some part is designated for the LTP. So, the money spent for monitoring varies from authority to authority based on what they deem their priorities are: “The government expects us to re-allocate the existing funding rather than to seek for additional means” (1H).

Although all district-partners to the LTPs are required to do nearly the same in terms of measuring environmental and other SEA/HIA-related indicators, they have different technical resources and capacities. Meanwhile, the commitment and managerial competence, as it was mentioned, depend on the resources at hand. One of the interviewees (1H) described a hierarchy of the existing equipment and personnel as per districts²⁰⁸ (Figure 1:5):

District	Stakeholders’ capacity to conduct ground level SEA follow-up
Sefton	Advanced sophisticated equipment, enough qualified people
Liverpool	↓
Knowsley	
Wirral	
St. Helens	
	Older equipment, lack of people

Figure 1:5 Hierarchy of the existing resources in 5 Merseyside Districts²⁰⁹

In general, there is a sufficient competence for SEA/HIA follow-up; however budgets for follow-up are not clearly set out and financial and technical resources are limited.

1.3.7. Networking for credibility and mutual trust

Many interviewees put forward the idea that the Mersey Partnership is a big formal network, members of which share a common corporate feeling and an ambitious desire to deliver good results for the public and perform well in comparison to other UK sub-regions. People try to think in conjunction during the implementation of the LTPs and follow-up (e.g., 1G). A big plus is that while tracking the consequences and performance outcomes of their strategies, they keep the “partnership” as a basic form of relations and share culturally provided tools and implements.

Smaller formal networks identified include sub-groups, groups and forums that participated in the preparation of the LTPs and SEA/HIA and are engaged in the LTPs and follow-up delivery. The way how network members interact is mainly a standardised procedure. The latter also guides a ‘vertical’ integration between the networks through assigned people. Further, networking via partnership with other authorities, e.g., Police or Network Railway, is promoted top-down and practised on the ground.

Informal networks of those engaged in the LTP and SEA/HIA follow-up delivery were also identified. They were mostly formed among the senior staff (around ten years or more) within districts. The interviewees stress that the interaction among the members of informal networks intensifies if something goes wrong, i.e. a form of an early alert if e.g., the review of environmental monitoring data shows unexpected negative effects. Such kind of informal networks exist in many cross-cutting areas of the LTP2. The informal networks between the environmental and transport services function according to the unwritten rules. They “lack the formalities that would demonstrate to the auditor that some actions have been undertaken, but this does not mean that those are not undertaken – just we do not have formal processes” (1J).

Formal and informal networks do not only enhance the mutual trust when implementing SEA/HIA follow-up, but also reduce the time needed to transfer information through bureaucratic channels. A sort of ‘social tiering’ is established through the networks at the different implementation levels. However, a function of networks during SEA/HIA follow-up in terms of enhancing the credibility of the LTPs for the public is unclear.

1.3.8. Provisions and possibilities for capacity-building (education, training)

²⁰⁸ The situation with the technical capacities has been improving over the LTP2, e.g., each council obtained at least one transportable monitoring station to measure CO, CO₂, NO_x, and particulates (PM₁₀s).

²⁰⁹ This is only the 1H’s opinion and does not represent the official vision or the author’s view.

The SEA and HIA had no recommendations about capacity-building for conducting follow-up. The only aspect related to educating the LTP implementers and mentioned in HIA was that public health specialist needed to conduct trainings or workshops for transportation staff in order to enhance their understanding of health issues. It is unclear whether those have been conducted.

The training possibilities in the LTP2 were designed to implement the plan²¹⁰ rather than to raise the awareness about and participation in follow-up and monitoring. The practice shows that in case of necessity, the districts contract consultants to conduct monitoring, aggregation and evaluation of data. Research institutions are rarely involved, which points to insufficient institutional brokering.

The LTP implementers believe that the maintained web-site is a good way to provide the information and educate people about the environmental follow-up issues.

Overall, the delivery and monitoring frameworks were developed based on the existing capacities of the Partners so that to minimise costs and thus do not envision additional training possibilities.

1.4. Process dimension: cases 2-4 in Lancashire

The 14 variables of the process SEA follow-up dimension are analysed based on the documents, consultations and interviews. When applicable, they are double-graded to reflect the extent to which they have been envisioned and implemented/performed (see Chapter 6).

1.4.1. Statement of SEA follow-up rationales/goals for different planning tiers and decision-makers

Setting goals of SEA/SA follow-up in all three joint authorities was directed by the national requirements and guidance. The understanding of SEA follow-up rationales was largely linked to the stated SEA follow-up goals and shared by the stakeholders of each LTP2. There are some minor differences among the authorities.

The SEA of the LCC LTP²¹¹ explains the need for monitoring in terms of its importance for identifying whether the LTP is having an adverse effect on the environment or sustainability objectives and checking whether the LTP is performing as predicted (Maunsell 2005a,51).

The Blackpool LTP's SEA monitoring objectives had a wider scope. They were to determine the performance of the plan and its contribution to objectives and targets; identify the performance of mitigation measures; identify undesirable environmental effects; and confirm whether the predicted impacts were accurate (Hyder Consulting 2006b). No specific processes for setting the follow-up goals have been identified.

The Blackburn with Darwen LTP's SA stated that monitoring was mandatory and did not legibly specify its objectives. Nonetheless, the interviewees demonstrated a rather clear vision of SA follow-up rationales and goals (e.g., 2E, 2F). Due to the in-house approach to SA and near to full integration of SA in the planning process, the understanding of the SEA follow-up objectives is shared by different Council units.

1.4.2. Early screening and scoping for SEA follow-up

It is a statutory requirement to prepare SEA/SA monitoring schemes, thus no SEA follow-up screening as such was conducted for the three LTPs in Lancashire.

In the LCC LTP2's SEA, deciding on the SEA monitoring issues and boundaries to be suggested for the LTP was largely accomplished during the SEA scoping.

²¹⁰ For example, pedestrian and cycling training in schools and for adults, educational programs for schoolchildren about air quality problems, training for the older and disabled, etc. (MLTPP 2008).

²¹¹ The SEA of the LCC LTP was conducted by the same consultant as that of the MerseyLTP2.

In Blackpool, setting monitoring scope was also carried out during the SEA scoping phase. However, according to the SEA report, the SEA and, therefore the SEA scoping, was initiated late when the Provisional LTP had been already completed²¹² (Hyder Consulting 2006a).

In Blackburn with Darwen, the preliminary SEA monitoring framework and indicators were discussed and set out during the SEA scoping (BDBC 2005). The draft monitoring scheme was based on the available data and on the data from an environmental audit conducted by a consultant in 2004 (2E). The audit reviewed a large number of environmental objectives and sources of data and provided the basis for a range of indicators, which the Council could use for the LTP2 (2F). Noteworthy, the Council expected the SEA scoping consultations to add to the SEA follow-up scoping; however, the statutory consultees to SEA did not suggest any changes to the list of monitoring areas/indicators (2E).

1.4.3. Specified design, methods, and coherence of SEA follow-up steps: formulation and implementation

1.4.3.1. Monitoring

The type of SEA/SA and LTP2 monitoring in all three Authorities basically refers to the performance and compliance monitoring tracks (Type B and partially A, Chapter 2). Monitoring of the relevant activities of other strategies is not formally envisaged (type C); however, the three Authorities cooperate on other local and transboundary initiatives and on the LTP2s' monitoring as will be discussed later (see 'cooperation' section below). There are variations in the performance management and follow-up steps among the authorities.

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The LCC LTP2 envisioned several monitoring schemes such as congestion, air quality and specific AQMA monitoring and embedded those in its generic performance management regime. The documented evidence presumes, though does not explain that this regime should be supplemented by the SEA indicators. Meanwhile, the LTP2 SEA proposed that only information that would be directly affected by the LTP would be used as SEA 'indicators' for monitoring (Maunsell 2005a). This Type B 'monitoring of actual implementation activities within the strategic initiative itself' was complemented by the monitoring measures that would help identify unforeseen/adverse effects of the LTP2 implementation. This combined approach is somewhat in line with monitoring Type A3) 'monitoring of actual impacts of the strategic initiative'. The SEA suggested that monitoring of the 'baseline' environmental and socio-economic data be conducted annually and that any changes identified as part of the 'baseline' review be analysed to determine the cause of the change (Maunsell 2005a).

Methods and schedules for monitoring indicators are outlined in the LanLTP2 SEA. The SEA monitoring framework proposed the sources of the data, stated whether the indicators are qualitative, quantitative or actions and recommended monitoring techniques and frequency (Maunsell 2005a). A 44-pages long appendix to the LTP2 listed the performance indicators with the detailed trajectories and targets and proposed vaguely formulated monitoring techniques for some indicators. Neither the SEA, nor the LTP assigned clear responsibilities for the monitoring actions. However, the LTP2 contained a generic indicators review scheme (Figure I.6). According to it, the intranet-based Lancashire monitoring system assigns the 'most appropriate officer' the duties for collecting and submitting data on a particular indicator(s). These data are checked by the managers and passed on to the 'LTP Manager', who reviews all submissions and is able to view the entire indicator for all districts set on the central system (LCC 2006a).

²¹² By stating that it was 'late', the Blackpool SEA meant that it was based on the completed Provisional LTP with the main elements/options being already formulated. Meanwhile, this is the actual, though not publicised, practice in the LTPs across the UK.

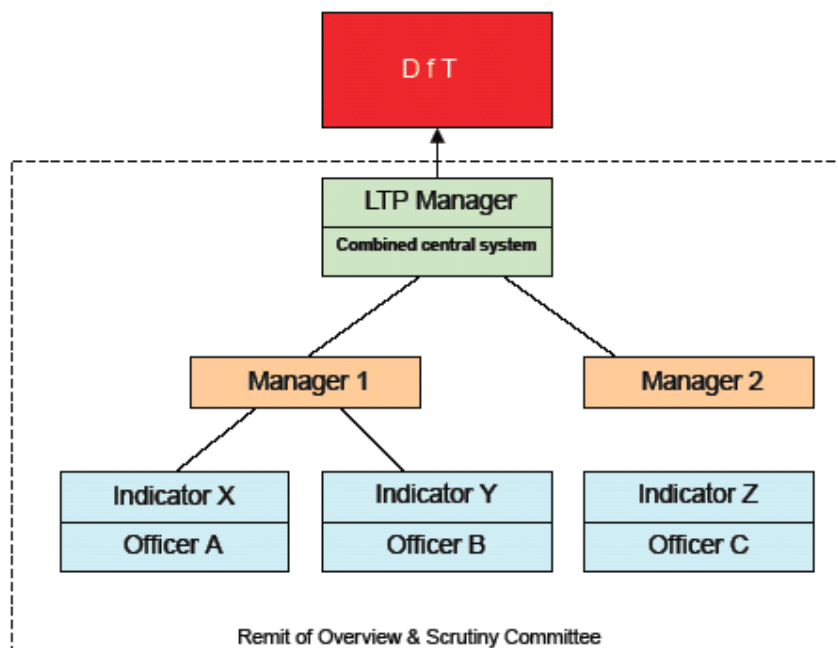


Figure I:6 A review process of performance indicators

Source: LCC 2006a

The ‘Lancashire LTP Manager’ manages the budget and delivery of the LTP2 “through regular monthly meetings with the project managers/budget holders to track progress, expected delays, proposed start and completion dates” (LCC 2006a,230). The major risks to implementing the LTP2 and monitoring were assessed to allow the LTP performance management scheme to identify the risk areas that needed regular monitoring.

SEA follow-up and environmental component. The LanLTP SEA identified the relevant LTP indicators and targets contained within the APR as ‘the most appropriate SEA indicators for monitoring the LTP’ (Maunsell 2005a). So, basically, the LTP performance indicators, especially the 15 mandatory ones, are the same as SEA monitoring indicators. Some other indicators suggested by the SEA partially reflected the 15 local indicators in the LTP. It is unclear how the remaining SEA indicators were addressed (considered or rejected) in the LTP. Another shortcoming is that no linkage was made between the significant impacts and monitoring indicators for them. Overall, the 1 LTP2 has only one purely environmental indicator, i.e. a mandatory ‘air quality target related to transport’ (with no measurement units indicated). No separate EMP for the LTPs were developed, however the LanLTP had several ongoing transport-related monitoring schemes²¹³.

Implementing monitoring. According to the interviewees, the monitoring schemes have become more advanced during the LTP2, e.g., a review cycle (Figure I:6) has been amended to fit the new LTP2 monitoring regime. Less has changed in terms of the ‘object’ of monitoring. As an interviewee said: “in 1997-1998 we also measured traffic flows...we do the same now but with automatic counters...And new electronic counters on buses give us a lot of information about individual journeys, meanwhile before we needed to guess for baseline” (2A). Collecting monitoring data is a task of each District and it is supported by many sources and inputs from e.g., DfT, local partnerships, police, schools, health services, fire service, etc. Districts use a number of methods for this, e.g., in Preston, around 30 diffusion tubes are installed around hotspots which allow the air quality officers to get the monitoring data before and after actions/measures (2G). They also run two real time air quality monitoring stations, one of which, installed 5-6 years ago, is operated on behalf of the central government to measure the background data in the rural area for national trends. Data from the real

²¹³ For example, the County Transport Asset Management Plan, Pedestrian Management Plan, etc. (LCC 2006a).

live stations goes to the Preston City Council website (2G) and is fed into the monitoring review cycle (Figure I:6).

Blackpool

The SEA monitoring proposal was based on the UK guidance documents and organised around the objectives-indicators-targets framework. This approach was argued to be essential for taking “account of changes to the environmental baseline and the implementation of the LTP” (Hyder`Consulting 2006a,99). In this light, the monitoring framework refers simultaneously to two monitoring Types, namely, Type A1 ‘monitoring of actual impacts of the strategic initiative’, which also embraces the intention to identify adverse environmental effects; and Type B ‘monitoring of actual implementation activities within the strategic initiative itself’. The SEA also intended to focus monitoring on determining the contribution of the LTP to its objectives and targets, which could be classified as Type A2 ‘monitoring progress towards strategic goals’; however, no explicit measures/indicators were identified in this respect. Further, the SEA recommended that a holistic monitoring approach should be adopted to cover cumulative, synergistic, direct, indirect and secondary impacts (Hyder`Consulting 2006a). Again, no concrete measures ensued from this statement. Similarly, no details follow the assertion that monitoring can be used to track the performance of mitigation measures or confirm the accuracy of the predicted impacts.

Methods and schedules. The Blackpool LTP2’s SEA monitoring proposal outlined the SEA objectives with the potentially significant impact(s) or the area of uncertainty; suitable monitoring indicators; targets (where devised); potential data sources; and monitoring frequency. The SEA made a step further and attempted a ‘management and responsibilities’ framework for identifying “who is responsible for collating the monitoring data” (see Hyder`Consulting 2006a). It proposed a table for monitoring responsibilities and highlighted a need for a structured and systematic monitoring, which could result in timely management. The SEA monitoring framework was informed by the LTP indicators such as some BVPI and LTP mandatory indicators (Hyder`Consulting 2006a). A Chapter of the LTP2 described the performance indicators with trajectories and targets where applicable. It elaborated on methodology and risk management for the indicators and specified the organisations (partners) that, together with the Blackpool Council, were responsible for the delivery. Within the Council, the Planning and Transportation Strategy Group, a multi-disciplinary forum with the representatives of a wide spectrum of services and all Council departments, oversees the LTP planning and delivery. The group “scrutinises capital investment decisions, monitors programme delivery, advises on policy...shares information and discusses strategy” (BBC 2006a,22). It reports to the Strategic Director of Tourism and Regeneration and receives information from the Council’s transport policy team.

SEA follow-up and the LTP environmental component. The LTP performance is measured via a set of core and ten local indicators. The SEA monitoring framework contains around half of these; however, it does not always precisely indicates which indicators are the LTP indicators. Another weak point is that no explanation is found of whether and how the remaining SEA indicators were considered in the LTP. The interviews suggest that the SEA indicators were reviewed for their feasibility during the LTP2 and rejected. For instance, one of the decision-making lines in this respect was as follows: SEA recommended monitoring “stuff like impacts on the landscape, but in Blackpool it is a minor issue, because our town is almost completely artificial” (2D), so this indicator was considered inadequate²¹⁴. One forte of the SEA follow-up proposal is that its indicators are linked to the significant impacts. Overall, the LTP2 has only one purely environmental indicator, i.e. the core Nitrogen Dioxide (air quality) indicator. It mentions some environmental issues as important, e.g., noise, but it does not suggest any relevant measures. No separate EMP for the LTPs was envisioned.

²¹⁴ Similarly, the statements like “nearly all soil in Blackpool is contaminated so the impacts of transport developments would be minimal or make it even better” (2D) made some other SEA indicators redundant. At the same time, the SEA enhancement measures were appreciated.

Implementing monitoring. Certain changes to the LTP2 monitoring occurred “as the monitoring scheme was moved from output-based indicators to outcome-based indicators...Some LTP1 indicators were successful ‘outcome’ indicators and these were transferred to LTP2; but some were changed” (2D, 2I). Not only the indicators were changed, but also new equipment/devices were installed and technical innovations and improved administrative procedures were introduced. For example, real-time information system, CCTVs, and speed cameras were provided, the number of diffusion tubes was doubled and two permanent air quality sites were established to validate air quality readings from tubes, etc. (BBC 2006a). Monitoring practice that proved to be successful in the LTP1 was continued to the LTP2, e.g., scheme-specific monitoring (see BBC 2006b) was applied in the LTP2 and included the selected SEA monitoring indicators.

The main monitoring concern expressed in the interviews about SEA follow-up and LTP performance frameworks is the cause-and-effect issue, e.g., “when we monitor something we are not sure the impact is caused by our LTP as there are a lot of things going on in the town that are more regeneration-driven” (2D). This directly affects the LTP monitoring scheme, which strives to avoid monitoring issues that may be more important or relevant for other Council’s strategic initiatives. The Council, namely the Transport Plan officers are in charge of collecting monitoring data. This is accomplished with the involvement of the key partners and stakeholders such as the public transport operators, Police, Hospitals, Blackpool Local Strategic Partnership, core public sector bodies (e.g., Blackpool Primary Care Trust), local business, and LCC. (BBC 2006a). The methods and techniques proposed in the LTP are applied and adjusted/reviewed as necessary. The LTP monitoring relies on some ongoing monitoring activities in Blackpool with such initiatives as the Police’s ‘Nightsafe’ initiative, etc. The Council annually reviews the LTP progress despite the fact that it is required to report on the LTP every second year, e.g., 2008, 2010.

Blackburn with Darwen

Presumably because the SA and LTP were conducted in a nearly ‘integrated’ mode (Chapter 2), the side effect of this full integration was that the SA monitoring framework as such was not easily identifiable. The SA claims that two monitoring regimes will be delivered: one directly dealing with the LTP monitoring (e.g., traffic levels, accident rates) and another one dealing with the SA framework more widely (BDBC&C 2006b,97). The direct monitoring of the LTP2 effects was devised to make use of existing performance management arrangements within the Council and was to be reported through APRs (BDBC&C 2006b,97). For this purpose, SA monitoring indicators repeated those established for the LTP2. They were to be monitored and reported annually and biennial reports were to be issued to the Government and the public. Indirectly, the SA was suggested to be monitored through the AMRs of the LDF, socio-economic reports prepared by the Council’s Corporate Policy Department and the regularly commissioned Environmental Audits²¹⁵ (2F, BDBC&C 2006a). As the interviews testify, this dual approach to follow-up to SA was needed to ensure its feasibility. On the one hand, it used the LTP delivery framework. On the other hand the SA of the LTP2 used approaches, indicators and data sets that are very similar to what is used in the Council’s land use planning (2F, 2E):

“So what we tried to do was to coordinate the monitoring of LTP2 with the wider monitoring of land use planning...So, what we produce for land use planning also looks at the key SEA indicators” (2F).

How the indirect monitoring reflects the LTP specific findings of the SA and how these are connected to the LTP delivery is unclear.

Methods and schedules. The SA did not draw links between the identified negative significant impacts and the ‘proposed’ LTP2 indicators. Nonetheless, it suggested mitigation measures for negative effects and outlined whether the implementation of mitigation was possible within the direct scope of the

²¹⁵ Environmental audits were carried out under the auspices of the Local Strategic Partnership’s Neighbourhood and Environment Forum in Blackburn with Darwen in 2004 and 2006.

LTP, through other Council's activities or through other agencies (BwDBC&C 2006b). The LTP2 Chapter described performance indicators with the corresponding targets and trajectories as well as monitoring methodology, risks, baseline details, outcomes, proposed investment and funding sources for each indicator. The LTP2 drew on the performance indicators' monitoring systems set out during the LTP1 and envisions regular quarterly or annual basis monitoring and reporting using a "Performance Plus" software. The responsibilities and schedules of SA follow-up and LTP monitoring are not detailed. Rather they are elaborated for separate schemes internally (2E).

SEA follow-up and environmental component. The LTP performance indicators cover 15 mandatory and eight local indicators, of which only one—a mandatory 'air quality' indicator—is purely environmental. It is monitored under the monitoring schemes established for five AQMAS.

Implementing monitoring. Monitoring data on targets and trajectories are collected with support of the responsible people/organisations at the set intervals, e.g., air quality from five AQMAS is reported monthly to the LTP team by the Environmental Health Department (BwDBC&C 2006a), information on some mandatory LTP/SEA follow-up indicators is provided annually by the Government (2 E), etc. According to the internal procedures:

"the indicators are arranged so that each can be monitored by a person and data is pulled together from the different information sets in the council and from other sources like the police office and other official web-sites. Also, somebody has a job to review these data and refresh data and also sources..." (2E).

At the level of the LTP schemes, each is assigned a project manager who is responsible for ensuring that "the project is adequately resourced from the required range of disciplines" and reporting the delivery process to the programme manager weekly alongside cash flow forecasting (BwDBC&C 2006a,204). The program managers are from the joint working group representing the Council and its partner, Capita Symonds²¹⁶.

1.4.3.2. Evaluation

Lancashire County Council

The type of the LanLTP's SEA follow-up evaluation has the characteristics of four evaluation tracks, i.e. impacts evaluation, goals-achievement, performance, and conformance evaluation (Chapter 2). The SEA suggests to monitor the baseline for ten SEA objectives, for which no specific indicators were identified (Maunsell 2005a). This additionally introduces some elements of area-wide evaluation, however no corresponding measures are found in the LTP performance management in this regard.

Methods for data processing and evaluation are specified only for some indicators. They draw on the data collection methods and generally defined responsible bodies and propose using different support tools, like Accession software. Otherwise, no methods for structuring, analysing and appraising the monitoring information are given. In general, the LCC quarterly and annually reviews the progress made against the targets. The LTP Manager reviews the data and regularly reports to the Departmental Management Team, which comprises all areas of Transport and Planning responsibility and has links to all local districts as well as areas of health, education, etc. (LCC 2006a). The interviews provide more details on the evaluation process, e.g., for air quality there are in-district procedures of monthly collecting and evaluating the data against the annual targets (2A, 2G). Based on this, the annual data are collated and evaluated either internally or externally. That being said, the review of the initially collected data is conducted by the assigned managers taking into account the frequency of data supply. Insofar as the evaluation and interpretation are mainly done in-house, there are no problems with the compatibility of monitoring data formats.

Blackpool

²¹⁶ A partnership between the Council and Capita Symonds was established in 2001 when the Council outsourced its Highways and Transportation delivery arm to Capita (later Capita Symonds) in order to improve service delivery and provide additional regeneration related benefits (BwDBC&C 2006a).

The type of SEA follow-up evaluation in the Blackpool LTP can be classified as a combination of four evaluation tracks, i.e. impacts evaluation, goals-achievement, performance, and trends/underlying factors evaluation (Chapter 2). Blackpool is required to issue the full-scale LTP APR (delivery reports) every second year and fill out financial forms for the other years. Nonetheless, the Council annually evaluates the level of targets' achievement to enable "policies and programmes to take account of changes in traffic, environmental, social and economic conditions" (BBC 2006a,131). The evaluation of the supplied monitoring data is done for all core and local indicators in the LTP.

Methods for data processing and evaluation are specified only for few indicators and are tiered to the monitoring data. Some modelling and software tools, such as Accession are mentioned. In general, the LTP suggests that the Planning and Transportation Strategy Group and its thematic sub-groups undertake evaluations and reviews. However, it does not detail the people/bodies responsible for the evaluation of monitoring data. Nor does it specify methods for structuring, analysing and appraising the monitoring information. No information is found on the problems of using different monitoring data formats and data management tools in the delivering organisations.

Blackburn with Darwen

The type of SEA follow-up evaluation has the features of three evaluation tracks, i.e. impacts evaluation (track 5), goals-achievement (track 2), and performance evaluation (track 3) (Chapter 2). Evaluation of monitoring data is viewed by the Council in conjunction with the LTP delivery and monitoring processes. The 'Performance Plus' software processes the received monitoring data for any vulnerable indicators quarterly and for more volatile targets such as public transport usage (BVPI102) monthly to enable immediate assessment and actions (BwDBC&C 2006a).

Methods: The data processing and evaluation methods are specified for some indicators/targets in the LTP2. However, it does not elucidate who is responsible for the first review at source and for the final aggregation, interpretation and reporting. The general LTP performance and SEA follow-up evaluation schemes function as follows: data on indicators/targets are evaluated as it is supplied by responsible officers; weekly, project managers aggregate the data relevant to their individual schemes, review the progress and report to programme managers, who through the regular meetings between the Council and Capita Symonds evaluate the reports (BwDBC&C 2006a). The LTP mentions the existence of ongoing review 'systems and processes' that enable the Council to evaluate the LTP performance (BwDBC&C 2006a). It does not detail how the review processes work and only says that they make "all relevant information...available on a monthly basis" (BwDBC&C 2006a,205).

1.4.3.3. Management

The type of management in all three Authorities' SEA/SA follow-up and LTP2 performance can be described as a combination of Type II. 'direct implementation actions' with Type III. 'activities controlled by a PPP' (Chapter 2). Type IV. management - 'other activities affected by a PPP' – is not envisioned. Type I. 'decisions on revising a PPP' is annually addressed to some extent and will become clearer when the LTP2s are revised in 2011.

Lancashire County Council

The mandates and responsibilities for SEA follow-up decision-making are not very clear from the SEA or the LTP2. Nonetheless, the interviews and documents suggest that the operating and top-level management considers the SEA monitoring and evaluation results. At the operating level, minor decisions about what is to be changed/improved in the monitoring or evaluation technique are made. For instance, "...we may say change the way how we measure some indicators or drop them if we prove they are not adequate" (2B). The explanations should be given if the actual effects differ from what was expected.

Several Districts operate such live-monitoring systems as CCTVs, UTC outstations (installed at 90 locations in Lancashire), Variable Message Signs (VMSs) network conditions, alternative routing, etc. (LCC 2006a). These help make routine management actions/decisions.

At higher management levels, the quarterly and annual reviews determine if the targets are being achieved. If they are on track, a possibility of setting more difficult targets is considered; if they are

off-track, an action plan should be prepared to allow for getting back on track to achieve the target (LCC 2006a). Thus, the monitoring data and evaluation findings are utilised in the LTP management and follow-up decision-making scheme.

Blackpool

The LTP2 SEA stressed the importance of a structured and systematic monitoring, which could result in timely identification of patterns and trends and in timely management. It proposed using a tabular format to record such SEA follow-up management elements in relation to a particular indicator as ‘the need for remedial action’, ‘the remedial action to be taken’, ‘the date for the implementation of remedial action’ (Hyder Consulting 2006a,106). This approach found its reflection at the LTP operating level, but it was not explicitly expressed in the LTP documents. The latter depicted a generic system of SEA follow-up decision-making where the Council takes decisions taking into account the opinions of the delivery partners. It does not specify the management details, however states that “[a]nnual reviews will guide the Council’s activities to achieve the targets set within” the LTP (BBC 2006a,131). If the performance of the LTP differs from what was planned, the investigation should be initiated and explanations should be provided to allow for corrective measures.

Blackburn with Darwen

The Council’s performance management is structured around four areas: management of targets and trajectories, management of individual scheme delivery, management of programme delivery and cost control (BwDBC&C 2006a). The LTP also addresses the risk management issues and suggests measures to mitigate these. The LTP performance management system including SEA follow-up explicitly links preceding monitoring and evaluation processes with the subsequent decisions and actions. Monthly updates on indicators/targets from the Performance Plus allow for timely evaluation and responses. Weekly reports from the individual schemes’ managers and weekly meetings of the joint Council-Capita working group help ensure that the LTP delivery is on track. The LTP performance-related decision-making power rests with this group and may involve other stakeholders as needed. The group is in charge of developing immediate response action plans in case the LTP schemes are getting off-track (BwDBC&C 2006a). It is not specified whether and how the off-track situations should be investigated and whether the managerial decisions taken should be discovered to the public or not.

1.4.3.4. Communication/reporting

Lancashire County Council

The LCC updates the public on the LTP2 progress through a dedicated website, which was used for consultations during the LTPs and SEA preparation. Additionally, the Transport Forum²¹⁷ is maintained to get comments from the public. Different groups of stakeholders, e.g., businesses, transport providers, users, are engaged in the partnerships and surveys across the County, which provide inputs in the LTP2²¹⁸. The County’s free newsletter contains updates on the LTP and is delivered to every household. Also, real time air quality monitoring is being made available on the Internet and on VMSs/UTC systems as mentioned above. This helps the public to make informed travel decisions. While reporting occurs annually, consultations/inquiries with the LCC Local Transport Planning Unit can take place anytime.

Blackpool

Public consultation was an extensive element of the LTP2 and SEA preparation. During this process the Council established a new website for disseminating the LTP and other transport information (BBC 2006a). It is used to regularly update the public and as a communication platform for the public

²¹⁷ See <http://www.lancashire.gov.uk/environment/ltf/forum.asp>.

²¹⁸ The LCC established a 1700 residents panel with representative of all twelve districts who every 3 years complete surveys on ‘Life in Lancashire’ (LCC 2006a). The last survey was in 2006 and provided the source of a quantitative view of the transport networks in Lancashire.

and the Planning and Transportation Division²¹⁹ (via inquiries and comments). Whilst Blackpool is required to prepare the LTP delivery reports for DfT in 2008 and 2010 (2D, BBC 2006a), it maintains the system of the annual reporting on the SEA follow-up as part of the LTP. It also reports on its AQMA's conditions to DEFRA and posts this information online. The Council also publishes articles in the 'Your Blackpool' newsletter to continuously inform the public of the LTP's progress (BBC 2006a). Multiple forums and partnerships are operationalised to bring together the Council officers, various services across the district, business and private operators, the interest groups and the public. Additionally, the communication strategy of the LTP2 implementation relies on several Council strategies with a strong communication and participation component, such as "Achieving Perfect Vision 2004-2020 - The Local Strategic Partnership" or "Art and Cultural Strategy" (see BBC 2006a).

Blackburn with Darwen

The LTP and SA preparation was accompanied by a series of consultations involving business, stakeholders, operators, agencies, neighbouring authorities, local strategic partners, etc. (BDBC&C 2006a). The SA published on the Council's website received a vast feedback from the individuals and environmental groups (2F). Based on the success of these communication processes, SA follow-up and the LTP envisioned the LTP-life-long consultations and informing programs. The former include updating and engaging the public in the LTP and SA follow-up delivery through the quarterly coordination meetings²²⁰, thematic forums, telephone surveys, posted and online questionnaires, etc. that seek to e.g., identify the opinions on such issues as congestion, the environment and travel behavior (BDBC 2008). The latter include full Biennial Progress Reports, online updates, articles in the local newspapers, forums, hotlines, etc. Additionally, some (major) schemes of the LTP2 devise their own consultation campaigns and establish dedicated website/webpage, e.g., rapid bus transport scheme (BDBC 2008).

1.4.4. Integration of SEA follow-up with the LTP implementation/performance monitoring

Lancashire County Council

SEA follow-up builds on a 'concurrent model' of the SEA and LTP2 integration. As the documents argue, the SEA and LTP processes were fully integrated (LCC 2006a,34) and findings from each stage of the SEA could be used to inform the LTP development (Maunsell 2005a,3-4). One priority was to incorporate the recommended mitigation and monitoring measures into the LTP2 performance management. According to the interviews and documents, several sets of mitigation and enhancement measures are to be delivered within the LTP2 schemes/programs including those to protect bio- and geodiversity, water quality, cultural heritage, etc. Thus, the 'interior' integration of SEA follow-up with the LTP2 is reflected by how the SEA recommendations were incorporated into the LTP performance monitoring and management. The SEA mitigation measures and SEA follow-up indicators were partially incorporated in the LTP2 monitoring framework design. The LCC with the Districts committed to tracking the indicators and fulfilling the mitigation recommendations during the LTP delivery, e.g., developing EIAs for three major schemes²²¹.

Blackpool

The integration regime of the LTP and SEA processes falls in-between the 'concurrent' and 'stapled' models (Chapter 2). Being less effective than a 'concurrent' model, this hybrid approach nonetheless "has enabled the LTP's broad environmental objectives to be systemised and has significantly affected how the LTP...assembly process aim to achieve these" (BBC 2006a,106). As mentioned, some of the

²¹⁹ See <http://www.blackpool.gov.uk/Services/S-Z/TransportPolicy/>.

²²⁰ The Council conducts quarterly coordination meetings where the Blackburn with Darwen Council Utilities Liaison Group meets with the utility companies and other interested parties, e.g., the police, the public transport coordinator, representing all public transport providers within the Borough and nearby areas (BDBC&C 2006a).

²²¹ Interestingly, during the preparation of the SEA and LTP in 2006, the EIA for the Ormskirk Bypass, one of the three major schemes in the LTP2, was in progress (LCC 2006c,7; Maunsell 2005a,60). Meanwhile, conducting an EIA was put forward by the SEA as a prospective mitigation measure.

SEA monitoring indicators were integrated with the LTP performance framework. However, this process was not described. The LTP does not contain the SEA conclusions/recommendations and does not explain how the mitigation and enhancement measures were incorporated in its planned delivery. One reason behind this was that the possibilities to link SEA follow-up monitoring to the LTP monitoring and performance framework were limited by the late SEA. It commenced when the provisional LTP2 was at the advanced stage (Hyder`Consulting 2006a) and limitedly influenced the LTP options/actions. This apparently contradicts the above LTP's statement that the SEA 'significantly' influenced the LTP.

The LTP did not contain any major schemes for the SEA that would require obvious follow-up/mitigation measures. There is a concern that the SEA could not be fully effective as it was applied to a wrong scale: Blackpool mainly does "very small schemes" and there is not much choice – "you either do or don't do the scheme" (2D). Therefore, the SEA had a difficulty in assessing the small projects and LTP options (2I), which influenced the recommendations and monitoring design. The interviews suggest that some SEA mitigation measures were incorporated in the LTP2 performance framework. In general, the 'interior' integration of SEA follow-up with the LTP2 cannot be judged based only on the extent to which the SEA recommendations were included in the LTP performance strategy, as the information in this respect is incomplete. A clearer situation is with the SEA follow-up indicators that are tracked and reported within the LTP performance indicators. But, overall, the integration of SEA follow-up with the LTP is blurred.

Blackburn with Darwen

The way how SA follow-up became an integral part of the LTP (and LDF) draws on the in-house integrated SA and LTP process. According to the interviewees transport "...plan was produced at the same time and nearly in the same office..." as the SA (2F). This allowed the SA monitoring framework to be aware of the ongoing Council's monitoring schemes. As the interviewee stated:

"SEA was a part of [LTP] process and SEA report was an annex to LTP...A lot of follow-up to SEA was to be done anyhow because it is a part of monitoring of land use planning and a lot of indicators are the same" (2F).

The in-house and integrated SA and LTP process resulted in a complete merge of SA follow-up and the LTP performance management design, which presumably accommodated SA mitigation and recommendations²²². This increased the degree of influence of the SA on the LTP, however made SA follow-up not easily identifiable. It is also intricate to track the evolution of the proposed SA mitigation measures in the LTP documentations and its delivery. Thus, it is possible to state that SEA follow-up is dissolved in the LTP performance regime.

1.4.5. Consistency of SEA follow-up targets and standards with those of upper, low, or horizontal strategies and policies (Explicitness of tiers)

Lancashire County Council, Blackpool, Blackburn with Darwen

The SEA/SA recommendations for the LTP2s of the three Authorities are consistent with the targets set out in the upper strategies such as the JLSP, RSS or Regional Economic and Housing Strategies, and national transport and sustainability initiatives. The interviews conformed that the policies of these strategies informed the preparation of the LTP2s and other District-level initiatives in terms of targets and standards. The LTP and SEA/SAs' standards, targets and objectives are consistent with those of the Districts' Local Plans across Lancashire and with the LDDs replacing them (see BBC 2006a; BwDBC&C 2006a; BwDBC&C 2006b; Hyder`Consulting 2006a; LCC 2006a; Maunsell 2005a). The

²²² The full integration of SEA (SA) with the LTP is usually typical of policy level initiatives, which may be a reason of why SEA as such is not often recognised (Fischer 2007). In case of Blackburn with Darwen, the policy approach to SA and full rather than concurrent integration mode (used for plans) was applied, which results in the similar situation when SA follow-up cannot be (easily) identified in the LTP performance management system and processes.

preceding/draft regional and sub-regional policies formed the basis for annual monitoring of some LTP programs, e.g., accessibility program.

In the LCC LTP2, the participation of all Districts in the planning process ensured that it was prepared in conformity with the District targets and standards. The LCC closely cooperates with the Districts to secure a proper consideration and implementation of the LTPs targets and standards at the local level. In the Unitary Authorities of Blackpool and Blackburn with Darwen, the LTP's targets and standards-based trajectories were brought in consistency with the upper, horizontal and lower strategies through close inter- and intra-council collaboration. The Blackburn with Darwen Transport Policy officers participate in other initiatives of the Council and Local Strategic Partnership to ensure their complementarity with the LTP2's targets and standards.

Overall, the Joint Authorities' LTP2 and SEA follow-up targets and standards are consistent with those of the lower LTP programs/actions and horizontal, (sub)regional and national strategies.

1.4.6. Assurance of open stakeholder cooperation and coordination including consensus-building on SEA follow-up method/process

Lancashire County Council

Importance of cooperation among the Districts implementing the LTP is highlighted throughout the documents. Many issues such as flood risks, climate change, and the state of the environment, require a strong cooperation, which is flourishing in the form of Lancashire Strategic Partnership, multiple District Partnerships, Lancashire-led traffic Managers meetings, Parish Partnerships, etc.

The documents claim that the LCC established a good cooperation tradition with other authorities/agencies within the County during the LTP1 and the LSP, which further evolved during the LTP2 and JLSP. However, the interviews point out to some problems that exist with achieving the LTP targets due to the different aims and rationales of the stakeholders, such as education or health services²²³. The 'transboundary' cooperation of the three Lancashire Authorities is obvious from the documents and interview. For example, in terms of SEA follow-up the LTP2 teams of the LCC, Blackpool and Blackburn with Darwen worked closely to develop consistent indicators and targets for the three LTP2s. By this, they enabled all Lancashire LTP2s to keep certain monitoring indicators and data in the same format/way. The representatives of three authorities meet regularly to discuss progress with the LTPs and share best practices. Moreover, all three Councils jointly appraise transport planning performance indicators (LCC 2006a).

To encourage cooperation with the public and private sector for the LanLTP delivery, the LCC runs Stakeholder Forums, the 'Life in Lancashire' Panel, the Community Engagement Strategy, etc. It has established partnerships with private sector operators and companies and it owns a company jointly with bus operators across Lancashire.

Consensus building. The prelude to the 'matching' of the SEA follow-up indicators with those of the LTP2 performance framework was a series of meetings of the SEA and LTP teams. They discussed the procedural and methodological approaches to integrating the follow-up and implementation schemes. The discussions were directed by the national guidance on monitoring LDFs and provided the basis for a common consent on the LTP2 delivery and follow-up methods. A mixed top-down and bottom-up approach to setting the follow-up scheme and method was exercised. The District

²²³ For example, planning in Health authority does not fully take into consideration the transport planning and time costs issues: "...the same health authority has hospitals in Preston and Liverpool: one operates say only children casualties and another - only adult casualties. So, people used to go to a local hospital, but now they have to travel to another region. How can we estimate those trips? Also, hospitals go for diversification to reduce costs and increase standards, but they do not include any consideration of transport costs. Plus, access to some hospitals is bad, so even when they have reorganised all hospital services, people cannot get in...They change things without consulting with us [Transport planning unit]. Presently, they approach the LCC to resolve their problems, but they did their studies and changes without us. And who will pay for the time of travel? It is the cost of the community - it is people's time and not health authority's time." (2B).

authorities proposed 15 local indicators according to the local needs and values in addition to the 15 agreed mandatory indicators.

Leadership. The LCC is the lead Council that organises and coordinates the work of 12 Districts. In terms of environmental research it relies on Lancaster, which also leads in congestion and air quality monitoring.

Blackpool

Multifaceted cooperation is stressed as essential for the LTP and SEA follow-up delivery (e.g., 2I, BBC 2006a). It is established among the Council departments, the representatives of which are part of the Planning and Transportation Strategy Group that oversees the LTP planning, delivery, monitoring, etc.

It is maintained among the Council and other LTP delivery public and private partners such as Urban Regeneration Company, transport operators, schools, cycling groups, police. Blackpool owns Blackpool Transport Services Ltd., the tramway operator and dominant local bus company. Several purpose-oriented forums were set up to reflect various collaborative themes, e.g., Taxi Quality Partnership aimed to create a forum to monitor and review the progress towards the LTP's and respectively SEA follow-up targets (see BBC 2006a,101).

Blackpool collaborates with the neighbouring councils, especially with those of the Wyre and Fylde Boroughs and also with Preston and the LCC. Due to a relatively small size of Blackpool, its dependence on the transport planning in the neighbouring districts, historically 'joint' planning traditions and the need to cope with such cross-cutting issues as accessibility, education or healthcare a number of 'transboundary' partnerships were established. Additionally, the officers of three authorities meet to discuss the LTPs' progress, share the best practices and contribute to a joint appraisal of transport performance indicators.

The Council tends "to stick to cooperating with our local stakeholders" (2D). This collaboration builds on the public involvement in the LTP and marginally in the SEA preparation through stakeholder groups, e.g., Blackpool Environmental Action Team (a community-led Agenda 21 focus organisation), Young People's Steering Group, Mobility Panel (meetings of transport users with mobility issues, transport operators and Council officers), etc. (BBC 2006a,171). The general public continues to be engaged in the LTP delivery and SEA follow-up through surveys and local stakeholder partnerships.

Consensus building. Some limitations of the SEA and LTP elaboration timeline did not allow for interactive discussions of methodological approaches to integrating the follow-up and LTP implementation schemes. The basis for the consent on the LTP2 delivery and follow-up methods was provided by the national guidances. As a result, the Council's bottom-up monitoring proposal contained ten local indicators in addition to the core indicators. A stronger consensus-building exercise took place when the Council faced a cause-and-effect issue of monitoring. It involved the implementers of other ongoing initiatives into discussions of what issues may be more relevant to other Council's strategies so that the LTP monitoring scheme could avoid monitoring them (2I). As the interview shows, "this also influences our monitoring scheme: say, we are told that something is a bigger issue for some other development – so we let them monitor it" (2D).

Leadership. The Blackpool Council takes a leadership and is responsible for the coordination of the LTP development and delivery. In many aspects it coordinates the actions with the LCC and through the LCC with other Lancashire Districts.

Blackburn with Darwen

During the LTP1 the Council started shifting the way of how it delivered its services to a more coordinated, collaborative and target-driven approach (BwDBC&C 2006a). The LTP2 further improved cooperation among various Council departments and between these and other services such as education, engineering, police and enforcement agencies (BwDBC&C 2006a).

Scheme-specific cooperation practice established between the Council as the key LTP implementer and other private and public partners/stakeholders benefits the LTP and SEA follow-up performance. The LTP envisions deepening the cooperation processes as the schemes will be taken forward

(BwDBC 2008). For achieving the LTP and SEA follow-up targets, the Council also cooperates with other Districts and service authorities both inside and outside Lancashire, e.g., the Council and the Greater Manchester exchanged the LTP and SEA follow-up related planning and delivery information (2F). As the interview confirms

“LTPs in different councils are quite self-contained, but we do meet every two months to discuss sub-regional transport matters. [W]e establish boundaries between the LTPs because they are investment-based, but we do look at the proposals that say Lancashire makes especially if they go across the boundaries” (2F).

Thus, the Council maintains cross-boundary partnerships with regards not only to specific schemes, but also to various trans-boundary issues.

Consensus building. The increased cooperation and coordination allowed strengthening the LTP and SEA follow-up delivery regimes. While the basis for the consent on the LTP2 delivery and follow-up methods was formed by the national guidances, a series of negotiations were held within the Council, across-Lancashire and Manchester to agree on a number of monitoring and evaluation procedures (2E)²²⁴. They took place alongside developing formal (top-down) mandatory and the local (bottom-up) indicators. Given the fully integrated LTP and SA, the interactive methodological discussions as to how to integrate the follow-up and LTP implementation schemes took place internally and were not disclosed in the formal documents (2F).

The Council takes a **leadership** over the LTP and SA development and follow-up delivery. In many aspects it coordinates the actions with other two Joint Authorities and other districts such as Cumbria and Manchester (2E).

1.4.7. Adaptability of a PPP and SEA follow-up

1.4.7.1. Feedback from subsequent decision-making to the initial strategy within the SEA follow-up scheme (organisational anchoring)

Lancashire County Council

As said, some SEA recommendations for the LTP2 policies (ca. 40) and major schemes were integrated with the LTP2 performance management framework. As those schemes and actions are being implemented, the response from them is fed back to the original LTP2 along the identified monitoring and evaluation tracks (see above). The information from the lower level actions is organised around the indicators linked to them and is reported to the mid- and higher operating levels to be included in the annual financial and progress reports. Organisational anchoring for the SEA follow-up and LTP implementation is maintained through formal APRs and informal information exchange flows at the operating level.

Blackpool

As the LTP schemes/programs are delivered, their progress information is collected and processed to be compared to the planned actions and be fed into the LTP annual reviews. The synergic impacts of the subsequent lower-level initiatives reflect the LTP performance and constitute its actual consequences. In a longer perspective, when the feedback from the subsequent actions is provided it is not fully processed by the ‘initial strategy’ until the next planning cycle. However, in a shorter perspective, immediate planning adjustments to the LTP and SEA follow-up draw on this feedback. According to the interview, “[t]aking into consideration the last year monitoring report for the next year planning becomes increasingly spread in the UK” (2D). This is supported by the elaborated organisational anchoring, which although is present in the LTP delivery, is not well-described in the documents. Thus, the Blackpool LTP and SEA follow-up are informed by the feedback from the ongoing programs/schemes.

²²⁴ E.g., the LTP stakeholders discussed which data sets held by various Council departments, e.g., Highways, Amenities should be reformatted to be useful for the LTP monitoring and management, etc. (BwDBC 2008).

Blackburn with Darwen

The information from the subsequent decisions/actions is fed into the monitoring reports of the LTP (2F). It is explicitly linked with the annual investment programs, which are adjusted according to the delivery updates and reviews (BwDBC&C 2006b). However, it is not fed into the initial LTP as such. Rather the feedback information is collected to serve as the basis for the next full LTP review as per the planning cycle. The practice of the LTP performance is illustrative of a clear organisational anchoring secured by the coordinated and cooperative work of the Council. This is supported by the continuity of addressing the issues emerging during the LTP implementation and linking them to next year planning. “There is a clear continuity between the each year reports and we try to keep the format similar as well” (2E). While the implementers of the LTP2 do not refer to the SA once it was conducted, they strongly focus on meeting the LTP and SEA follow-up targets. Thus, the APRs on LTP and SEA follow-up are informed by the feedback from the ongoing programs/schemes; whilst the full scale feedback is scheduled for the LTP review time.

1.4.7.2. Provisions for response measures to (non)deliberate situations or external changes

Lancashire County Council

Deliberate adaptive management. The LTP performance framework envisages routine adaptive actions such as revising the targets and trajectories over time as per the planning and SEA/SA guidance (e.g., LCC 2006a, 2G, 2A.). The LTP actions can also be revised annually drawing upon the progress against the targets. There is a commitment to investigate the reasons of any minor deviations from the planned actions, explain those changes and take corrective actions. However, the concept of adaptive management is weakly addressed in the LanLTP, despite the fact that it is practised based on the performance data and (un)official information supply. The operating officers and LTP Manager make efforts to keep the LTP delivery adaptive and consistent with the LTP objectives and the available resources.

Adaptive response to external triggers. The LTP2 SEA monitoring framework suggests that the baseline monitoring for the identification of unforeseen, adverse effects can make the LTP responsive to external factors. The documents and interviewees share a common view that the causes of the effects must be determined in order to decide whether these are under the control of the LTP2 or not. In the former case, adaptive actions are to be taken by the LTP management; otherwise, the relevant authority/agency should be contacted for further actions.

Blackpool

Deliberate adaptive management. Following SEA/SA guidances, the Blackpool Council undertakes such routine adaptive actions as revising the LTP2 targets and trajectories over time. The documents evidence that the Council “recognises it may be necessary to review and revise targets, if and when the original trajectories have been exceeded, to ensure stretching improvements” (BBC 2006a,131). The practice of revising the LTP schemes based on their performance was developed during the LTP1. At the same time, it was recognised that forecasts and trajectories may not be linear and will depend on the delivery of previous years’ schemes. Therefore, it was suggested looking into the conditions of minor deviations from the planned actions, investigating the reasons of these and adjusting them to attain the LTP performance objectives. The Council also envisioned such deliberate emergent changes when e.g., because of the difficulties in delivering a scheme in one LTP year, it would be possible to advance another scheme to maintain improvements (BBC 2006a).

Adaptive response to external triggers. Annual reviews are believed to enable the Council to make changes to the LTP and SEA follow-up programs in response to the changes in external environmental and socio-economic conditions. Moreover, the documents argue that annual reviews make “the LTP responsive to changes in wider policy approaches or as a result of new ideas, or other related changes that impact upon transport” (BBC 2006a,131). However, the LTP and SEA follow-up schemes do not envision ‘area-wide’, baseline or other external conditions-oriented types of monitoring that would effectively support such statements.

Blackburn with Darwen

Deliberate adaptive management is addressed by the Blackburn with Darwen LTP in several ways. First, an ongoing (monthly) review mechanism set up for the LTP2 enables tracking the progress against the predetermined targets, trajectories, delivery and outcomes. The Council uses this information for developing “a flexible and adaptable approach to getting areas of concern back on track at the earliest possible stage” (BwDBC&C 2006a,205). This approach helps the Council continuously identify the problems and develop appropriate solutions. Second, the LTP performance management foresees such routine adaptive actions as revising targets and trajectories over time (2E, 2F) according to the planning and SEA/SA guidance. Third, weekly reviews by the project managers and program managers inform immediate adaptive management.

Adaptive response to external triggers. As said, the LTP2 includes those SA indicators that are transport-related, while the remaining monitoring of the SA is accomplished via the LDF monitoring, Council’s environmental audits and socio-economic investigations. However, the SA monitoring and mitigation proposals do not contain any measures for making the LTP responsive to external emergent changes. According to the SA the Council needs to annually review monitoring findings to “consider if the LTP is the most appropriate mechanism to respond to a particular issue: alternatives include action through the Council’s planning policy, enforcement regimes, and partnership working with other agencies” (BwDBC&C 2006a). Whilst the LTP2’s ongoing review is considered to be able of responding to external triggers, it does not specify managerial reactions to situations that are out of the LTP’s (or Council’s) control.

1.4.7.3. Revision of SEA follow-up if the contents of a PPP changes

Lancashire County Council

The LTP implementers intend to deliver SEA follow-up as part of the LTP2 in a way that its actions are responsive to long and short-term environmental changes. Similarly to the MerseyLTP, the significant revisions to the LanLTP SEA follow-up schemes are mostly triggered centrally, rather than by changes in the LTP. According to the interviewees, in case some LTP2 schemes are not relevant any more or unfeasible, they can be revised. The funding allocated to the ‘blocks’ of LTP actions is attempted to be spent as planned, however if emergent changes to the LTP occur, financial schemes are revised accordingly (2A). Changes to SEA follow-up and LTP monitoring program due to emergent developments can usually be made, if they do not require large financial inputs (2B). Otherwise, it might not be possible for follow-up to follow the changes in the LTP at least until the end of the scheme’s delivery or a budget year or even until the current LTP cycle ends. The next SEA cycle will fully consider the changes that occurred during the previous 5-year period. Some programs, such as AQMAs and Air Quality Zone, are exceptional as they envision the development of new indicators or targets over the LTP2 period. Overall, any kind of revision/change to SEA follow-up that is triggered by changes to the LTP will depend on the financial conditions and to some extent on the internal politics in the LCC (2G).

Blackpool

The Blackpool LTP2 considers a possibility to make changes to the indicators, targets and trajectories including those of SEA follow-up based on the LTP schemes delivery. However, these changes have to follow the annual revisions order as non-envisioned changes are technically difficult (2I). They also may require additional resources which may exceed the minimum finances transferable between the LTP schemes. Revisions of SEA follow-up indicators as part of the LTP performance framework are to some extent addressed through the risk assessment exercise. E.g., if Urban Regeneration Company, a LTP delivery partner, starts a major Tramway scheme it is likely that the traffic level will exceed the projected trajectory for this indicator and then the trajectory will be revised (BBC 2006a). Overall, the monitoring funding was included in the corresponding LTP actions with no contingency funds envisioned for monitoring: “if something emergent happens, we have to cope somehow” (2D).

Blackburn with Darwen

The interviewees do not recall any instances of significant changes to the LTP that would necessitate environmental re-assessment, etc. Rather the implementers have to deal with multiple minor changes. For example, “the fundamental strategy does not change and we have a lot of minor changes” (2F). As

the minor changes occur the SA follow-up is attempted to follow them, but basically within the course of a particular scheme that would not involve obtaining additional funding. As the interviews show “monitoring that relates to the overall strategy will not change; meanwhile monitoring of minor things will take into consideration some minor changes” (2E). Slight adjustments in the LTP schemes/programs, even unanticipated, may not require any changes to follow-up. This is especially relevant when a scheme changes, but “it changes so that still to meet the needed targets” (2F). At the same time, even if some schemes are changed and temporarily postponed, the indicators are not dropped, because “this will be an issue in future for traffic...” (2F). Overall, while the LTP documents are not very specific about the potential changes that can occur to SEA follow-up if the LTP changes, the interviews show this is thoughtfully considered on a scheme by scheme/case by case basis.

1.4.7.4. Revision of a PPP if SEA follow-up reveals unexpected impacts

Lancashire County Council

The interviewees could not recall any cases of changes to the LTP as a result of SEA monitoring. One interviewee confessed: “...we do not have means to do this, not even financial – but not real control means and levers” (2A). Some lower level strategies or actions of the LTP2 might be changed because of the recent restriction of the AQMAs (2B). This presently does not relate directly to SEA follow-up; however, the integration process of the LTP and AQMA is underway (2G) and SEA follow-up may become stronger in this area.

The documents mention that the priorities of both the LTP and monitoring can be revised. But they do not detail the conditions for such revisions. The general concerns when considering whether to make a change to the LTP program or not are the accuracy and consistency of monitoring data (2A) and the attribution of the revealed impacts. The District authorities might not be in a position to judge if the effects identified in SEA follow-up are caused by the local LTP actions. In this case, they cannot argue a need for a change in the LTP2²²⁵.

Blackpool

Blackpool is a small district with one level of local authorities and any changes to the LTP that exceed the permitted thresholds and planned allocations become a local political issue. While the LTP is claimed to be responsive to the external and internal changes, no operating mechanisms other than annual reviews are envisioned. No cases of the LTP revisions caused by the factors revealed by SEA follow-up were remembered by the interviewees. Similarly to the LCC LTP, a matter of concern is that of causality when the monitoring data was revealing something unexpected which could have been attributed not (only) to the LTP, but also to other Council’s initiatives. The LTP’s SEA also brought about this issue saying that some indicators could be influenced by various external factors and a detailed review of why an adverse impact occurred was needed to determine whether the LTP was the major causative factor (see Hyder Consulting 2006a).

Blackburn with Darwen

The LTP delivery framework acknowledges the fact that monitoring findings can cause changes to the LTP. The objects of adjustments/changes are the LTP’s annual investment programs and actions linked to them. They are annually reviewed and (dis)approved by the Council’s Executive in order to consider the monitoring data, emerging funding sources and the results of ongoing consultations (BwDBC&C 2006a). The changes to the LTP and especially to the investment program are not easily made if they exceed the established internal thresholds. If such cases occur, the changes to be made to the delivery program “are passed through the Council’s internal political decision-making process and reported to the DfT through the delivery reports process” (BwDBC&C 2006a,204). Clearly, depending on the scale of changes the political decision-making process and associated consultation and negotiation rounds can last quite long. At the same time, given a good level of inter-departmental

²²⁵ Uncertainty in causal relations is a factor that should not be underestimated when proposing to revise/change the LTP2 because of some monitoring data.

cooperation in the Unitary District, measures more cardinal than annual re-adjustments can be taken by the LTP implementers if monitoring data require this:

*“When we see that environmental monitoring indicators do not meet the standards then we are expected to **stop implementing certain actions**. We can wait until the end of the budget year but if...[something]is urgent - we have close relations with the Council- and if [something] changes as the program goes on, we can change the things immediately. But we rarely can make extra job – as we have to wait for money to become available (2E, 2F) (author’s bold accent).*

The interviews also highlight that there are no emergency funds for making other than minor changes to the LTP (2F).

1.5. Structural dimension: cases 2-4 in Lancashire

The next nine variables of structural dimension of SEA follow-up finalise the analysis of three SEA follow-up cases in Lancashire based on the documents, consultations and interviews (for the grades see Chapter 6 and Appendix J).

1.5.1. Statement of strategy (including follow-up) ownership and status of the proponents

Lancashire County Council

The LCC holds a lead-author’s and coordinator’s role in the LTP design and delivery and closely cooperates with the District Councils. It took part in the several stages of the iterative SEA process and shared the ownership for its follow-up with the Districts and other partners. The LTP is implemented through a system of contracts, partnership agreements, and other collaborative efforts that allow defining the status of organisations, sub-contractors and authorities engaged in SEA follow-up. Generally, it is stated that each LTP2 scheme is assigned a Project Manager who takes the ownership over the scheme at all stages, monitors its progress and reports to the Department or section Head (LCC 2006a,79).

Blackpool

The Blackpool Council is the developer and owner of the LTP. In the absence of the appropriate internal capacities the Council commissioned the consultant to undertake the SEA. An officer was assigned to participate and support the SEA process: “In our case I am myself trying to keep an eye on what is happening with SEA, but obviously we will be hiring people to do it” (2D). While the Council has not been fully engaged in the SEA process, it is the main implementer of SEA follow-up as part of the LTP. The implementation is shared with the LTP partners and facilitated by the fact that the Council owns and maintains some transport infrastructure elements, such as the Blackpool to Fleetwood Tramway, Blackpool Transport Services Ltd. (the tramway operator and dominant local bus company). The statuses of the LTP implementers and the overall ownership over the LTP and SEA follow-up are clear. However, presumably due to a relatively simple delivery structure, the ownership for the performance indicators or separate schemes is not detailed in the LTP documents.

Blackburn with Darwen

The Blackburn with Darwen Council is the owner and developer of the LTP and SA prepared in partnership with Capita Symonds Ltd. In delivering the LTP and SA follow-up it propagates a multi-agency principle, which implies working in partnerships with many stakeholders²²⁶ on various transport issues and sharing ownership of the overall problems (BwDBC&C 2006a). The LTP describes the ownership provisions for only some performance indicators and targets. It also presents some individual schemes in the context of the assigned ownerships and statuses of the partner-implementers, e.g., the schemes aimed to increase road safety through training, education and publicity (see BwDBC&C 2006a). While ownership for indicators is not entirely clear within the key implementers, the Council strives to develop a feeling of ownership for the schemes among a wider range of stakeholders by enhancing public consultations.

²²⁶ For example, the Primary Care Trust, Health Authority, Police and Employers Forum (BwDBC&C 2006a).

1.5.2. Clear timing and position of SEA follow-up

1.5.2.1. in relation to SEA and its strategy formulation and delivery processes

Lancashire County Council, Blackpool, and Blackburn with Darwen

According to the national guidance and regulations, SEAs were fed into the second round of the existing transport planning cycles in the LCC, Blackpool, and Blackburn with Darwen. All three Authorities are committed to carry out SEA/SAs and propose SEA follow-up and monitoring frameworks for their LTPs on a regular 5-year basis. Thereby, SEA follow-up becomes a part of a repetitive revision/planning transport cycle.

The SEA Directive, the UK regulations and guidance place SEA follow-up in a certain position in relation to the LTPs implementation process. Namely, SEA/SA follow-up in the LTP2s should match and be integrated with the performance monitoring. Thus, the temporal relationships among SEA/SAs, their follow-up and the LTP2 delivery were defined by a standardised procedure, which was followed by the three Authorities.

1.5.2.2. in the broader context of upper, lower, or horizontal strategies and their EAs

Lancashire County Council, Blackpool, and Blackburn with Darwen

The administrative linkages among the LTP2s of the Joint Authorities are clearly mentioned largely due to the traditionally strong planning interlinks and close geographical location. When carrying out the SA, the Blackburn with Darwen team consulted on the SA issues with the adjacent authorities, which influenced the relevant LTP aspects.

Within the three Authorities, the LTP2s implementation and performance schemes including SEA/SA follow-up are considered in the ongoing horizontal and lower (mainly transport-related) strategies. For example, in the LCC two local cycling-related SEA follow-up and LTP indicators are monitored as part of the Bike Aid Program launched during the LanLTP1. In Blackpool the scheme/program-specific monitoring and reporting are favoured, which allows for linking the lower strategies to the LTP2. In Blackburn with Darwen the ongoing review system creates favourable conditions for connexions to and monitoring and feedback from lower level schemes²²⁷. The Blackburn with Darwen Council put forward the idea that the SA monitoring should be linked to and partly monitored through the Council's wider SA framework. As a "corporate" task (BwDBC&C 2006b,98), it should draw on information from other horizontal and higher level activities within the Council, such as AMRs for the LDF, socio-economic reports and periodic Environmental Audits²²⁸. Occasionally, informal information (via personal channels) is exchanged between the Joint Authorities' LTPs including SEA follow-up and delivery progress of the Councils' other lower and horizontal level actions.

The LTPs of the Joint Authorities are clearly tiered to the related higher strategies, e.g., the JLSP and regional strategies. Meanwhile, the links between the SEA/SAs of the LTPs and SEA/SAs of the related strategies are weaker²²⁹. For instance, while the LTP2 SEA/SAs explicitly refer to the SEA/SA context documents and the LTP-related strategies such as the JLSP, RSS, national policies, they do not refer to their SEA/SAs²³⁰. Furthermore, how the LTP2 APRs and SEA follow-up are positioned in relation to the parallel processes of SA monitoring of the RSS or other regional strategies is unclear.

²²⁷ For example, the LTP2 intends to prepare a Transport Asset Management Plan and an SA for it. The Council officers believe that monitoring of the SA of this plan will form part of the SA monitoring of the LTP2 (see BwDBC&C 2006b).

²²⁸ While the Council accepts that there is no formal feedback loop between AMRs and the LTP, it believes that "the use of a common SA framework makes such feedback possible" (BwDBC&C 2006b,98).

²²⁹ The concept of tiering suggests that the SEA/SA of a higher level strategy can focus the SEA/SA of the lower one on the areas of concern.

²³⁰ This is despite the fact the SEA/SAs of the related strategies were accomplished before the SEA/SAs of the LTP2s. Exceptionally, the Blackpool LTP's SEA clearly stated that the JLSP's monitoring reports were used as the baseline data for the SEA (Hyder Consulting 2006a).

The Blackburn with Darwen officers slightly clarified the issue stating that the LTP 1 and 2 were asked to provide information to the JLSP and later to the RSS for their monitoring reports (2E). However, it remains unclear how SEA follow-up schemes of these strategies are related, given that the Council “[has] always provided information to them since 1997” (2F). Thus, the interviews with the Joint Authorities shed little light on how the information from the LTPs SEA follow-up is conveyed and utilised by SA follow-up of e.g., the RSS or JLSP and vice versa.

1.5.3. Acceptance of roles and responsibilities and accountability in SEA follow-up

Lancashire County Council

As it has been mentioned, the LTP2 and its SEA do not contain detailed monitoring responsibility tables. Developing them is a task of the Districts who define the roles of different stakeholders from bus operators to LTP officers. The LTP performance management provides a schematic of a review process and strived to ensure the acceptance of responsibilities and keep the responsible people/operating units accountable through the partnerships with the District and Parish Councils. The Councils increasingly adopt the responsibility for the implementation of the LTP policies and programs. Their Project Managers and officers have to oversee and report on the proper fulfilment of the tasks by contracted companies, bus operations, etc. The Districts elaborate various types of internal protocols and delivery tracking *proformas*. As one interviewee stated they prefer to use “primitive” rather than sophisticated protocols to measure and record the LTP schemes progress (2A). The tasks for follow-up and monitoring are usually included in the package of various tasks to be implemented by an assignee. Assigning tasks is based on an officer’s competence and specialization. It is an agreement-based exercise so that the assigned officers meaningfully accept the tasks and the personal accountability. No enforcement/supporting mechanisms for keeping track of follow-up and performance monitoring delivery are envisioned. To sum up, the Districts are responsible for the relevant LTP programs, but the LCC takes the corporate accountability.

Blackpool

Under the guidance pressure the LTP planners acknowledge that they “need to monitor the SEA and implications of LTP2” within the LTP monitoring scheme (2D). Although the SEA follow-up work schedules (as part of LTP) are not specified, the interview/documents suggest that the officers responsible for the monitoring, evaluating or reporting tasks take the personal accountability for their actions. Scheme-specific and theme-specific allocations of tasks to the Council officers in the transport policy and other departments is competence and qualification-based. The Council as the key LTP implementer accepts the corporate accountability for the impacts of the LTP2 and renders an account to the public and the Government. There are no enforcement/supporting mechanisms foreseen for tracking the progress of the SEA follow-up and LTP performance.

Blackburn with Darwen

While the public versions of the LTP and SA do not contain work schedules with the responsible people, the internal procedures allow for determining the actors responsible and accountable for SEA follow-up as the LTP’s part. According to the interview, “internal versions [of the LTP and follow-up documents] have each target assigned to a council officer and we have to report this” (2F). The Council’s Transport Policy officers participate in assigning the monitoring and LTP performance tracking tasks and accept these. They closely cooperate with other LTP partners to ensure the scheme/sub-group-specific progress and enforce accountability for the stated commitments. Thus, the Council in partnership with Capita holds the overall accountability for the LTP’s delivery and shares accountability/responsibilities with the LTP partners of individual schemes. The participation of the LTP officers in other Council’s and Local Strategic Partnership’s initiatives plays a positive role for enhancing a shared accountability among a wider range of stakeholders. Although the Council is not required to annually produce the delivery reports, it nonetheless annually reports to the Government and regularly informs the public on the LTP and SEA follow-up progress (2E).

Thus, there is an acceptance of roles and internal personal accountability for the LTP and SEA follow-up actions; however, it is not always transparent to the public. The general accountability for the LTP lies with the Council and is shared with the key partners.

1.5.4. Transparency for SEA follow-up delivery activities

Lancashire County Council

The transparency during the SEA and LTP preparation processes was largely ensured by an extensive consultation and communication with a range of social groups, forums, and various stakeholder organisations. The LCC established many local partnerships and engaged various stakeholders such as Health services, fire services, local environmental groups, in preparation of the LTP schemes. There is no documentary evidence that the public and stakeholders were involved in setting out the SEA follow-up framework, however they could comment on the SEA report. The LTP and SEA follow-up delivery involves the public and stakeholders through the annual surveys²³¹ and forums and informs them through the APRs. The inclusion of the SEA mitigation measures into the LTP also adds to the transparency of the SEA follow-up delivery. However, the latter marginally benefits from the SEA monitoring proposal since its inclusion in the LTP is only partial. At the corporate LTP level, the organisation-wise and Councils-wise division of responsibilities weakly contribute to the LTP performance monitoring and SEA follow-up activities regardless the stated commitment to increase transparency in transport decision-making. However, regular in-house and inter-District meetings improve the inter- and intra-organisational transparency. A concern has been expressed that the necessity to manoeuvre between the two planning levels and two political agendas in the Lancashire two-level planning system may hamper the transparency of how the LTP and follow-up are formulated and delivered.

Blackpool

The overall approach of the Blackpool Council to the LTP design and delivery is such that it should be transparent and open to the stakeholder scrutiny (BBC 2006a). This is facilitated by the multiple partnerships between the Council and various services and authorities, between these and the public groups as well as within the Joint Authorities and the public. During the LTP and SEA²³² preparation the extensive consultation and community participation process contributed to the overall process transparency. These elements formed a 'transparent' platform, which the subsequent SEA follow-up could be based on. For example, the Council uses the dedicated website for disseminating the LTP news; the LTP delivery envisions establishing a rolling consultation programme that will embrace further stakeholders; "[a]rticles within the 'Your Blackpool' newsletter will continue to inform the public of the programme's progress" (BBC 2006a,173), etc. Forums, internal officers meetings, annual reviews and reporting also add to the LTP and SEA follow-up delivery.

Blackburn with Darwen

Transparency of the LTP delivery and SEA follow-up builds on a good record of the cooperation and consultation between the Council and LTP stakeholders. The Council envisages working more "closely with service users and partners throughout the change process" (BwDBC&C 2006a,36). It intends to create conditions for a "wider publication and promotion of monitoring results [to] help engage and involve citizens and users in charting progress" (BwDBC&C 2006a,36). Owing to the participation of many stakeholders, e.g., schools, business, bus-operators, police, in the delivery of the LTP elements the credibility of the schemes and the District Authority amplifies. Moreover, some stakeholders such as bus-operators, police are key actors in reporting monitoring information, which increases the credibility of the public towards the schemes²³³. Whilst there are internal procedures and processes within the Council that determine what issues, when and to what extent are to be disclosed

²³¹ For instance, the surveys collect "satisfaction" opinions on the public transport information, road conditions, on percentage of people who believe that getting to where you need to go in Lancashire is becoming easier (LCC 2006a, Annex 2: Performance Indicators Detailed Trajectories).

²³² The SEA highlighted the need to comply with the provisions of the Aarhus Convention (Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, 1998) (Hyder Consulting 2006a).

²³³ However, there is a concern about the accuracy of data collected, which is supposed to be overcome by means of automatic equipment, etc.

to the public, annual reports, interest/scheme-related forums, scheme-specific consultation series, newsletters, articles, website updates, etc. contribute to raised transparency and legitimacy of the LTP.

1.5.5. Commitment to SEA follow-up and acknowledgement of non-compliance

Lancashire County Council

The commitment of the LCC to protect and enhance the environment is mentioned throughout the LTP2²³⁴. The LTP details its contribution to a number of environmental commitments that are being achieved by other strategies, e.g., Lancashire Environmental Strategy 2005-2010 or Lancashire Strategy for Landscape. The LCC and partner-Districts express commitment to the SEA follow-up measures as part of the LTP2 delivery. They highlight the dependence on the resources available to deliver the LTP and SEA follow-up. Externally, the corporate commitment is inspired by financial incentives such as national awards or sectoral grants, as well as by intangible rewards e.g., corporate image. The internal, individual commitment is not addressed in the documents; the attitudes of the interviewees vary from neutral “this is our job” to enthusiastic “now we have enough people to do what we are doing...[monitoring, reporting, writing policy papers]...” (2A, 2G).

The LCC practices the appraisal of risks associated with under-delivery of schemes and non-achievement of targets and proposes corrective actions (LCC 2006a). It realises that some targets, especially mandatory ones e.g., air quality related ones, are ambitious and hardly achievable. The interviewees suggest that the Government may need to revise those as there are many cities in the UK (and in other EU countries), which do not comply with the air quality requirements (e.g., 2B). The non-implementation of the SEA recommendations, that are part of the LTP, means the non-implementation of the LTP programs. This may lead to a failure to comply with international, national, regional, and local policies, a reduction in national and private investment, a worsened Lancashire’s national reputation for delivery, an environmental degradation, etc. These threats are to a larger degree acknowledged in the LTP2 risk management component (LCC 2006a).

Blackpool

Over the LTP1 period the Council achieved significant improvements in such areas as Council commitment, infrastructure, stakeholder engagement, monitoring and target setting (BBC 2006b). The Blackpool LTP2 emphasises the Council’s commitment to environmental improvement and mitigation proposed in the SEA (BBC 2006a). On the one hand, given the partial inclusion of the SEA recommendations in the LTP and the obscurity as to how these are to be implemented, the commitment lacks the solid ground. On the other hand, the LTP stresses the fact that “the environmental objectives within the LTP framework will help meet SEA[D] sustainability aspirations” (BBC 2006a,102) and thereby reinforces the Council’s commitments. The aspirations to deliver the planned LTP actions and hit the targets are supported by the LTP2 investment program, which reflects the Council’s “commitment to long-term sustainability” (BBC 2006a,102). The interviews show the personal commitment of the LTP officers to corporate assessment schemes (e.g., 2D) and to the delivery of their recommendations; however, the appropriateness of those is questioned (2D) and therefore the motivation was not high.

The LTP2’s risk assessment and management of performance indicators takes account of possible non-implementation conditions. But, the threats of non-compliance with the planned environmental SEA follow-up enhancement/mitigation measures are not addressed. One reason for overlooking this aspect may be a clear intention of the LTP implementers to include in the “monitoring framework...[only those] indicators that...could [be] monitor[ed] and evaluate[d] in-house” (2D).

²³⁴ As the interviews show, the LCC often faces the conflicts of transport versus other priorities before it commits to a particular LTP action. For example, the Government policy is to reduce the time people travel, however at the same time it permits people to send their children to any school and not to the closest one, which would definitely result in the desired travel time reduction. The LCC is both a transport and education authority, which in this situation has often to scarpify transport to education (2A). This choice implies that the LCC has to ‘non-comply’ with some national policies.

Blackburn with Darwen

The LTP documents frequently mention the Council's commitment to efficiently deliver the LTP and attain its targets and objectives. The commitment to cooperate with the LTP stakeholders and to consult with the relevant agencies and the wider public in order to achieve "continuous improvement" is also documented (BwDBC&C 2006a,8,9). The interviews confirm a specific commitment of the LTP implementers to the environment-related targets and to tracking the progress towards them. The Council officers are committed to monitoring the LTP and SEA follow-up performance, especially given the efforts they put into the preparation of the SA and LTP (2E).

Whilst the LTP2 thoroughly describes the potential risks to indicators and targets and measures to mitigate those, it does not go into 'residual'/actual consequences of underperformance if it occurs. Basically, the corporate and personal commitment and aspirations of the Council and its partners and officers is considered to be high enough to eliminate a possibility of failure. As the interviewees say: "We do not even think about non-compliance" (2F). There are some external incentives such as national or external funding that underpin the aspirations to which the LTP implementers have committed themselves. For example, "annual reports influence the amount of money that is given to the council for transport schemes". There is also fear of losing Council's image and public trust in case of non-delivery coupled with the fear of getting less funding and being penalised. The LTP documents do not cover these issues; however the interviewees comprehend the potential consequences of non-implementing the LTP elements. They state that "[i]mprovement that we bring is important and we need to meet the targets. Otherwise, there are strict penalties from the government" (2F).

Thus, there is a clear commitment by the Council and its officers to monitor the LTP and SEA follow-up performance. It is underpinned by both financial and moral motivations of the LTP implementers and the understanding of potential threats of non-compliance.

1.5.6. Competence (managerial) and adequate resources for SEA follow-up

Lancashire County Council

The LCC and District Councils possess just sufficient competence and managerial capacities to deliver the SEA follow-up as part of the LTP (e.g., 2A, 2G). The technical capacities (equipment and devices) have improved since the LTP1. However, as the documents and interviews highlight the effectiveness of delivery depends on the available financial resources. Financial allocation comes from national (DfT, DfES, etc.), regional and EU sources, and contributions from partners such as bus operators, countryside Agency, Primary Care Trusts. Some elements of the LTP, e.g., AQMA action plans are prepared and funded by Districts²³⁵.

The LTP risk management system considers the issues which may arise from or result in financial problems. It takes stock of contra-measures and plans to work closely with various "funding agencies to identify and pursue additional funding opportunities" (LCC 2006a). It contains three scenarios of a 5-year spending program²³⁶, which includes monitoring and follow-up items under the corresponding LTP policies. The LTP also details the additional schemes that would be implemented if the LCC manages to secure additional funding of 25%. Overall, there is a sufficient competence for SEA follow-up and technical capacities for normal operations, but manpower is limited and the budgets envisioned for monitoring and follow-up are far from being sufficient²³⁷.

Blackpool

²³⁵ E.g., the Preston City Council claims to have enough resources to conduct additional air quality research or hire consultants (2G). The situation on other Districts is believed to be similar based on the documents.

²³⁶ Three funding scenarios are the forecast LTP allocations plus external funding, forecast LTP allocation plus 10% plus external funding and forecast LTP allocation plus 25% plus external funding.

²³⁷ The LTP Annex on performance indicators confesses that "despite all our efforts to work more efficiently and deliver better value for money, unless there is an increase in the level of funding for road maintenance there is little prospect of reversing the deterioration in highway condition" (LCC 2006a, BVPI224a in Annex 2).

The Council strives to secure means for the efficient delivery of SEA follow-up within the LTP. The LTP funding comes from several sources, e.g., the Government, EU programs, Council's revenues, private business, etc. The LTP planners put substantial efforts in acquiring the necessary resources for follow-up activities and constantly seek for complementary funding and possibilities to delivery greater 'value for money'²³⁸. The financial means for monitoring were included in the LTP (2D) under the appropriate actions, which is shown in the 5-year funding allocation plan (BBC 2006a). In some cases the quality of the LTP and SEA follow-up delivery depends on the additional, private or external funding (BBC 2006a). The managerial skills and technical capacities are considered to be just sufficient for the proper LTP monitoring. A continuity of the knowledgeable staff from the first to the second LTP has been stressed (BBC 2006a).

Blackburn with Darwen

The LTP obtains funding from the Council's revenues, national and additional/external sources such as European Regional Development Fund, the Highways Agency, NW Development Agency, Schools for the Future, private investors, other matching Council's schemes, etc. (BwDBC&C 2006a). Finances for the LTP monitoring and performance management including SEA follow-up are determined for each indicator/target and represent separate items in the investment program. No contingency funding is envisioned for follow-up issues.

A review of the human, time and financial resources undertaken by the Council prior to the LTP2 and SA preparation resulted in switching "people to work on SEA...Some were working half-time on SA, and we thought it was cheaper than to pay to a consultant and easier to integrate this assessment with the plan"²³⁹ (2E). Thereby, in addition to economizing the resources the Council received other added values such as raised capacities and the integrated planning and SA process. When implementing the LTP2 the Council faced a staffing issue, which was temporarily resolved (e.g., GONW 2008a). Despite the fact that "about 10 people are involved in the monitoring scheme" (2F), who possess necessary operating and managerial competence, the shortage of human/time resources remains. To ensure the continuity of staff in the LTP a system of shared responsibilities and awareness is exercised, so that "if somebody leaves there are people in the same department able to fulfil the functions until the position is filled" (2E).

Thus, the Council possesses sufficient professional and managerial competence; however, the human/time resources are limited. Funding for monitoring and follow-up, while being clearly defined in the LTP investment program, is nonetheless limited.

1.5.7. Networking for credibility and mutual trust

Lancashire County Council

Formal networking within and among numerous partnerships engaged in the LanLTP and SEA follow-up is a strong facet of the LTP performance. During the preparation of the LTP1, JLSP, LTP2 and its SEA, the LCC promoted formal networking with the District Councils, partnerships with bus operators and other stakeholders. At the operating level, the LTP and SEA follow-up delivery has a heavy bearing on quarterly meetings of thematic officers from all Districts, e.g., a pollution officers group or transport officers groups meet to discuss the progress of the topics both directly and indirectly related to their work area(s). The sub-groups in the group focus on some specific thematic sections. A member of such professional network mentioned: "we share the information and best practice that way - through a network, so that it is available to everybody" (2G). Thus, the benefits of networks are not only the internal learning and exchange of information, but also its openness to other interested stakeholders/the public. The informal and "official" forums as well as quarterly meetings of the management and elected members to review the reports on performance indicators are also well established networks. The informal networks are formed mainly when emergent changes or

²³⁸ For example, the Council excluded some major schemes from the LTP as they could not be funded within the LTP and as timetables and availability of funding for them was uncertain (BBC 2006a).

²³⁹ This was possible partly because the Council's land use plans had an appraisal procedure similar to SA (2E).

uncertainly are faced by operating officers or other LTP implementers. They aim to address the triggers of the problems before the actual problems burst and are usually short-term. The networks add to the credibility of the LCC and its LTP during the implementation period through the disclosure of information and explanation of the decisions and changes to the SEA follow-up and LTP delivery.

Blackpool

The SEA exercise influenced the cooperation and networking during the LTP preparation (e.g., 2D). It made use of the existing (LTP1) forums and networks and gave an impetus to establishing both formal and informal cross-departmental networks. Based on the existing network structures, the LTP implementers envision creating new formal networks in the course of the LTP2 and SEA follow-up delivery. No informal networks have been identified²⁴⁰, while the formal forms of network such as forums, work-related personal communication, workshop and meeting are abundant. Some of those aim to enhance the credibility, mutual trust and support to attain the LTP and SEA follow-up targets/objectives. E.g., the Blackpool Travel Plan Partnership involving local public sector bodies and transport operators was launched to “create a self-sustaining mutual support and best practice network, in which the Council would be an equal partner through its own Travel Plan” (BBC 2006a,95). Thus, multiple forms of formal networks in Blackpool LTP benefit the LTP and SEA follow-up in terms of enhancing mutual support and credibility of the LTP partners/stakeholders.

Blackburn with Darwen

According to the LTP officers, it was indispensable to exchange the information on the SA scope and issues and therefore the SA-related networks were created within and beyond the Council:

“...we talked to each other in different councils...It [SA] was something that was required to be discussed. We also discussed Transport Network with Lancashire and Blackpool which are part of the transport schemes...We had a lot of information from them [Manchester] and we supplied them a lot of information that we developed within Blackburn – we exchanged the information” (2E, 2F).

Formal communication platforms evolve around the individual LTP schemes and actions and are maintained as needed during their implementation, monitoring and performance management. Owing to a lot of efforts put in cooperation and consultations programs, formal networking within and among numerous partnerships engaged in the LTP and SEA follow-up is a rather strong aspect of their delivery. Interestingly, formal networking, either scheme- or program-specific facilitates learning and continuity of qualified staff. The interviews contend that the “existing mechanisms and system of meetings and reporting help a lot” to preserve the continuity of competent people in charge of the LTP delivery (2F). The existing mechanisms imply various operating regimes for formal internal networking, e.g., monthly internal coordination meetings, weekly meetings and reports, monthly monitoring reports from the LTP partners such as bus-operators, interest/scheme-related forums.

The Council also encourages a sort of semi-formal networking that benefits the LTP delivery and SEA follow-up. E.g., at five AQMA, where monitoring and modelling confirm the excessive pollution levels, meetings with local residents are organised to informally consult with them on pollution-related issues and measures (BwDBC&C 2006a).

Internally, informal networking occurs along the lines of the formal LTP networks and relies on the professional interest and personal connections of the Council officers and LTP partners. They are implicit and rare partly due to the fact the formal networks are plentiful and consume a lot of time and energy of their participants.

1.5.8. Provisions and possibilities for capacity-building (education, training)

Lancashire County Council

The LTP aims to develop and promote quality training for the targeted road users and safety education for children. However, it does not envision capacity-building for the SEA follow-up and LTP

²⁴⁰ This might be due to a small size of the District.

implementers and partners. Similarly, the SEA recommendations do not advise about capacity-building for conducting follow-up. The interviews did not add a lot in this regard. They suggested that this component in SEA follow-up is not that vital to be envisioned beforehand (e.g., 2A). Since the public is basically engaged in the surveys that do not require any special training and are not reasonable for the follow-up delivery, no monitoring and follow-up awareness raising programs are designed for them. Rather, the forums and LTP web-site serve to provide the information and educate people about the LTP and follow-up issues. The possibilities for institutional brokering are envisioned through involvement of consultants and partnerships with Universities, such as Lancaster University or University of Central Lancashire. Thus, the SEA follow-up and LTP performance frameworks were developed drawing on the existing capacities of the LCC and its partners and did not envision additional training possibilities for the implementers. This somewhat contradicts to the interview evidence that shows that technical and human resources are not sufficient.

Blackpool

The LTP contained a number of soft measures, such as walking and cycling promotions, bus promotions, and School travel plans and a set of educational and training actions. However, the educational, individual/collecting capacity-building and training opportunities refer to transport users and not to the implementers of the LTP. Informally, the internal workshops and meetings of the transport and other council officers and LTP partners contribute to the sharing experiences and good practice. One aspect that possibly influenced the non-inclusion of education measures for SEA follow-up was the attitude of the LTP planners to the SEA. According to the interview, while undertaking a SEA requires special skills, the LTP delivery is a formal transport assignment (2D)²⁴¹. The possibilities for institutional brokering with universities are not clear-cut; the consultants are supposed to be hired whenever needed. Overall, the LTP delivery including SEA follow-up was planned based on the existing Council's and partners' capacities.

Blackburn with Darwen

No information is provided in the LTP documents regarding the possibilities to build SEA follow-up related capacities of the key implementers and stakeholders. The Council officers believe that they have enough potential to cope with monitoring and other follow-up activities while implementing the LTP. They stress the continuity of well-prepared staff and internal informal practical trainings through regular meetings of transport sub-groups, project managers, etc. (e.g., 2F). Regarding the possibilities for institutional brokering, the transport officers admit that in case "very special expertise is needed we can hire a consultant" (2F). Technical support to some extent is provided by consultancy Capita Symonds. Continuous cooperation with local colleges is maintained through the Local Strategic Partnership; however no outsourcing of follow-up activities is mentioned. Numerous education and training actions envisioned in the LTP2 are aimed at the target groups such as school children, cyclists and pedestrians and have no connexion to raising the institutional capacities of the LTP implementers.

Given the Council's existing capacities for conducting SA and presumably SEA follow-up, capacity-building exercises other than these involving internal networking were considered surplus. Institutional brokering is possible, though it is not detailed when and how.

2. Analysis of cases in Canada

This section of the Appendix successively analyses SEA follow-up during the implementation of the Pasquia-Porcupine Forest Management Plan (PP FMP), Saskatchewan (Case 5) and Core Area Sector Plan (CASP) in the National Capital Area of Canada (Case 6).

2.1. Context dimension of SEA follow-up in Saskatchewan

²⁴¹ In addition, the SEA was not considered being time and money worthy (2D). This indirectly prevented the planners from allocating extra resources to its follow-up. Besides, follow-up was not required to be "reported separately" (2D).

This section reviews 10 variables of the SEA follow-up context dimension in Saskatchewan forestry planning. It draws on the interviews, document analysis and personal correspondence with the case study actors. The summary of the context SEA follow-up characteristics alongside the grades is found in Chapter 6 and Appendix J.

2.1.1. Existing planning and policy-making practice and the SEA system in Saskatchewan

2.1.1.1. Planning type and policy framework for SEA/follow-up

Canada has federal and provincial levels of parliamentary government. Provincial governments are responsible for social policy-making in such areas as social assistance, education and health; whereas the federal government has authority over defense, foreign relations, criminal law, trade, fiscal policy, etc. (IOG et al. 2001,32)²⁴². At the bottom of the planning system are municipalities, structures and responsibilities of which vary across the provinces. They can be in charge of providing local services, e.g., major roads, sewer, water, police and land-use planning (Stein 2001).

The forest planning hierarchy in Saskatchewan is part of provincial land-use planning. It comprises four levels as per the Forest Resources Management Act (FRMA) (1999, last amended 2007) (Figure I:7). Provincially, Forest Accords are prepared ca. every ten years to establish long-term forest management principles, policies, and goals for the province and to set out the directions for regional and local forest plans. To operationalise Forest Accords at the regional scale, IFLUPs are developed for each forest management unit. They aim to identify the most appropriate mix of sustainable land uses for the region and are prepared with the inputs from the local stakeholders.

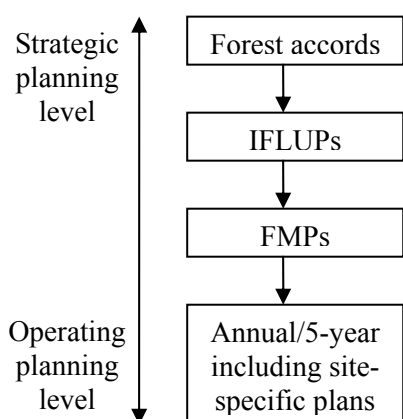


Figure I:7 Saskatchewan forest planning and management hierarchy

The next layer is 20-year FMPs prepared by forest companies to detail how industry will operate and how forest operations will affect existing users and forest health. FMPs are prerequisites for entering into FMAs. FMPs are translated into local operation level through sites-specific annual and five-year operating plans.

FMPs are subject to EAs under the 1996's amendment to the Saskatchewan Environmental Assessment Act²⁴³ (EA Act, 1980). Typically of EIA-based SEA systems, the proponents of FMPs are required to conduct an EA in compliance with the formal guidelines and seek approval from the Minister responsible for the EA Act prior to the plan's implementation. The Ministry of Environment (SE) issues "Project Specific Guidelines" to facilitate the EA process and provides consultations and advice to the proponents. Additionally, there were/are some guidances and guidelines available to the proponents as advised by SE (for guidance materials see section below). Once approved under the EA Act and FRMA, FMPs must be reviewed every ten years. The sector-specific guidance and "Project

²⁴² The federal and provincial governments basically have equal status (Stein 2001,33).

²⁴³ The EA Act applies to plans that are considered 'developments' and FMPs in Saskatchewan are classified as 'developments'. Although EAs of FMPs are often referred to as EIAs, they possess the features of SEAs and reflect the value of integrating SEA within industry plan- and decision-making (see Noble 2004a).

Specific Guidelines” require that FMPs are monitored by the proponent and SE in terms of performance and formal compliance.

Overall, the forest land use hierarchy in Saskatchewan clearly provides for possibilities to accommodate sector-specific SEAs. These have been practised since 1991 when SE (that time SERM) for the first time applied the EA process to a 20-year FMP. The practice has evolved despite the limited policy and formal framework and the absence of a generic methodology for SEAs and follow-up. Sectoral guidance and “Project Specific Guidelines” under the EA Act direct the preparation of SEAs/follow-up for FMPs and contain recommendations for their implementation.

2.1.1.2. Political commitment to SEA/ follow-up and influence

Political commitment of Canada to environmental protection and sustainability concept was legislated by the 1973 Federal EA and Review Process. However, there was little government recognition of links between sustainability and strategic EA prior to the 1990s despite the efforts of Environment Canada to put forward SEA in the light of sustainable development (Marsden 1998b,247). The 1990 Cabinet Directive on the EA of Policy, Plan and Program Proposals (updated in 1999, 2004) affirmed the government's commitment to sustainable development and transparent decision-making at strategic levels (see CEAA 1999; MSS 1990; Noble 2004b). Its implementation was facilitated by the 1993 guidance by the Federal EA Review Office, presently Canadian EA Agency (CEAA), and other sector guidelines (e.g., Marsden 1998b; Noble 2002).

Following the example of the federal government, all 10 Canadian provinces established provincial EA legislations. Saskatchewan was among the first to commence the EIA practice in 1973, followed by the 1976 EA policy, the establishment of the EA Branch within SE and the EA Act (see Bowden & Weichel 2005). It is one of the provinces that have formalised the commitment of the federal government to sustainability and strategic level EA and it is one of the three (out of 10) Canadian provinces that have experience in formal EA of PPPs (see Noble 2004b). Saskatchewan government seeks to promote an integrated approach to decision-making and SEA in line with the sustainability principles. As the recent study shows the present SEA practice has indeed evolved to effectively influence the final decision outcome (see Noble 2004b).

2.1.1.3. Socio-economic preconditions for SEA/follow-up

Providing economic resources for conducting EAs for FMPs in Saskatchewan as well as for following them up is a legally stipulated responsibility of the proponents²⁴⁴. Given the industrial nature of FMPs which are mostly designed and implemented by private organisations²⁴⁵, the uncertainty about the availability of external or domestic capital investment does not allow judging about the state of this economic preconditions. In terms of social processes, the presence of both Aboriginal and non-Aboriginal communities in Saskatchewan, especially in its forested areas, creates differing social values, economic circumstances and cultural and heritage concerns. Whereas the overall political situation is stable with EAs being present on the governmental agenda, the often intricate ground-level relations between the proponents, local and Aboriginal communities may impede the preparation of EAs and implementation of their follow-up alongside FMPs.

At the time of the PP FMP and EA preparation the population change rates in the FMA and EA areas were fluctuating due to high exodus and unemployment rates were well above the provincial average (SMLP 1997a). The FMP gave a close consideration to these existing socio-economic problems in the area, particularly some of its objectives were to “provide safe and stable jobs”; to “provide economic, social and cultural opportunities for the benefit of present and future generations, with special emphasis on Aboriginal communities” (SMLP 1997c,12). These objectives reflected the region’s priorities for sustainable forest management on a par with sustainable economic development.

²⁴⁴ According to the EA Act, the proponents are responsible for all costs associated with the EA work, producing EIA, etc. (Section 9).

²⁴⁵ Both provincial-municipal government and the proponent-as a business enterprise-are concerned with federal, municipal and provincial revenue taxes and other provincial corporate taxes and stumpage (e.g., SMLP 1997a).

2.1.2. Formal provisions for SEA/follow-up

2.1.2.1. Legislation and regulations

In the absence of formal requirements for ‘SEA’, the Saskatchewan EA Act (last emended in 2002) nonetheless requires EA of 20-year FMPs. It forms the legislative context for preparing SEA and FMP alongside the FRMA, the Canadian National Standards for Sustainable FM and other relevant regulations²⁴⁶. The Saskatchewan EA Act has no legal requirements for EA follow-up of FMPs. This omission is partly addressed by the FRMA, which requires that:

“Forest management plans are to...describe the monitoring, assessment and reporting process the licensee will use to demonstrate to the minister the degree to which the objectives of the forest management plan and operating plan are being achieved” (Clause 39 (2) (e)).

Absence or partial provision of monitoring, assessment and reporting programs in the FMP may result in non-granting of the approval decision by the minister.

More specific requirements for SEA follow-up can be found in binding approval conditions of the Ministerial Approvals under the FRMA and under the EA Act. Both approvals were issued for the PP FMP and EA, the latter being accompanied with the “Reasons for Decision” (see SERM 1999a; SERM 1999b). They stipulated the fulfilment of performance monitoring, assessment of impacts of the FMP, pre-harvest site assessment and continuous environmental monitoring as well as the proponent’s participation in the provincial forest inventory and existing monitoring schemes.

2.1.2.2. Manuals, guidelines and guidance for SEA/SA/SIA

As said, development of FMPs and their SEAs is guided by the “Project Specific Guidelines” issued by EA Branch of SE. They usually contain the primary guiding provisions for preparing mitigation and monitoring and research proposals for EA. For the PP FMP’s EA these require the proponents to undertake “monitoring and research” in order to *inter alia* ensure that all the impacts (positive/negative) identified by the EA are “tracked over time and appropriately understood” and “determine the effectiveness of the mitigation measures” (SERM 1996,17-18).

Further directions are set out in the Saskatchewan “General Guidelines for Conducting an Environmental Impact Assessment” and the Canadian Standards Association’s (CSA) Guidance on Sustainable FM System (CAN/CSA-Z808-96). Additionally, other (environmental) theme/sector-specific guidelines, such as “Guidelines for the Protection of Aquatic Habitat During Forest Operations” (see SMLP 1997c), complement and reinforce the EA guidance framework in Saskatchewan. Recently, a FM planning document was developed by SE, as part of the Forest Planning Manual, to establish objectives, standards, guidelines and procedures for FM planning process (see SEFS 2007).

Overall, there is limited guidance for SEA and follow-up for FMPs in Saskatchewan. SE provides formal/informal consultations and assistance throughout the EA process. It also formulates guidelines on a case-by-case basis. The proponent supplements these by the relevant assessment, monitoring, evaluation and reporting advice from the CSA’s Guidance on Sustainable FM and other theme/sector-specific guidelines.

2.1.2.3. Enforcement and compliance mechanisms

Enforcement of EA and follow-up provisions in Saskatchewan forestry is not strong despite the existing acts, regulations or guidelines. E.g., there are no legislated requirements that bind the proponents to follow Project Specific Guidelines or maintain regular consultations with the SE’s EA Branch (see Bowden & Weichel 2005). In the absence of formally defined composition of EA report, assessment components, scope and legalised requirements for EA monitoring under the EA Act, it is not easy to enforce EA and its follow-up/monitoring. A lot of promise for enforcing the

²⁴⁶ E.g., the PP FMP and EA listed 29 relevant acts, by-laws, and regulations (see SMLP 1997c).

implementation of FMPs in line with the EA approval conditions is associated with the public consultations and cooperation between the government and the proponents.

SE Forest Service and EA Branch cooperate to develop the enforcement mechanisms and capacities utilising the enforcement system established under the FRMA. It defines the responsibilities and power of ‘enforcement officers’, such as conducting inspections, investigations, arrests if needed (the FRMA, Sections 66-75). Under the EA Act the minister may enforce the Act statutes through reviewing the quality of EIS, conducting research in respect to EA, disseminate EA-related information, etc (Section 5). He/she may also conduct investigations if, in his/her opinion, terms and conditions of ministerial approval are not complied with (the EA Act, Section 19). The EA Act does not clearly provide the officers of EA Branch with power levers for enforcing EA monitoring and mitigation measures during FMPs’ delivery.

2.1.2.4. Formal distribution of responsibilities/roles

The EA Act and the FRMA spell out the roles and responsibilities of the main actors in the EA- and FMP-making processes. Namely, the proponent is obliged to conduct both processes and issue the corresponding documentation, while SE is responsible for preparing FMP-specific EA guidelines and for final plan review and approval. SE is also in charge of producing terms and conditions for approvals and their enforcement. Conducting monitoring and follow-up to EA as part of FMP’s monitoring, assessment and reporting framework is a task of the proponent. The proponent should provide opportunities for public involvement during the FMP and EA preparation and the FMP and EA follow-up implementation. FMAs detail legal rights, responsibilities and obligations of SE and the proponents (the licensees) regarding a particular FM area.

2.1.3. Formal compliance with sustainability principles

Some basic sustainable forest management ideas were introduced in Saskatchewan as early as in the 1930s (3F). Since the early 1990s sustainability and integrated resources management has been high on the Saskatchewan forest planning and political agenda. Provincially, the SERM developed the Conservation Strategy for Sustainable Development (1992), the Saskatchewan Long-term Integrated Forest Resource Management Plan²⁴⁷ (1995), and the FM Policy Framework (approved by Cabinet in 1995) (SERM 1998a; SERM 1998b). The concept of Sustainable FM has been legally institutionalised through the FRMA and FRMA Regulations (last amended in 2007) reflecting the commitment of SE to practice and enforce this concept. It was further supported by forest-sector related federal sustainability policies such as “Defining Sustainable Forest Management in Canada: Variables and Indicators” (2003)²⁴⁸. Hence, EA follow-up in Saskatchewan’s FM planning and delivery has solid sustainability-oriented policy and legal frameworks to rely upon.

In fact, Sustainable FM principles have been the key elements of the PP FMP planning and delivery philosophy (see SMLP 1997c). Both FMP and EA were guided by this principle as it is repeatedly stated throughout the strategic documents (see SMLP 1997c) and confirmed by the interviewees (e.g., 3J, 3A, 3G). They were reflected in the plan’s goals, objectives, indicators, targets and projections. Presently, compliance of the PP FMP’s SEA follow-up with provincial and national Sustainable FM principles, goals and targets is part of Weyerhaeuser’s corporate mandate.

2.1.4. Possibility to incorporate SEA follow-up results in subsequent planning (adaptiveness)

SE has long recognised adaptive management as one of the key principles of sustainable land use and sustainable forest planning (e.g., SE 2007; SFIM-SAB 2002). An opportunity to learn from the ongoing follow-up to FMPs and to integrate the knowledge into the next years’ operations and

²⁴⁷ The plan aimed at balancing the need to maintain/enhance the long-term health of forest ecosystems with the need to provide economic, social and cultural opportunities and included 11 strategies such as the Renewable Resource Management Strategy, Urban Forestry Strategy, Economic Development Strategy (e.g., SERM 1998b).

²⁴⁸ It has been worked out under the auspices of the Canadian Council of Forest Ministers and identified a set of variables and indicators developed at the national level (see SEFS 2007,47).

strategies of the plans has been one of the elements of forest planning philosophy since the 1990s (e.g. SERM 1998b). The recent FM planning manual names adaptive management as one out of five key principles of sustainable FM planning in Saskatchewan. It also highlights the crucial importance of monitoring and evaluation elements of FMPs implementation “for ongoing adaptive management and continual improvement of forest management planning and practices” (SEFS 2007,7). It lays the foundations for operationalising the adaptiveness of FM planning system by requiring the proponents to incorporate the results of and learning from FMP monitoring into a revised FMP as part of adaptive management (SEFS 2007,11). The legislation and manual outline the procedures as to how FMPs can be amended, revised or audited in relation to planning/reporting cycle. The weakness, however, is that there are no legislated or explicit guiding preconditions for revising the initial goals, targets, actions or indicators of forest strategies or monitoring programs. FMPs-specific formal and guiding documents detail the feedback conditions, thereby reinforcing and supplementing otherwise weak basic legislation. In the PP FMP case, for instance, such FMP-specific documents as the FMA, approvals and guidelines set out the conditions for considering the follow-up results in the update/revised plans (see SERM 1999b; SERM & SMLP 1999).

2.1.5. Integration of SEA follow-up with existing monitoring systems

Saskatchewan Government encourages cooperation and coordination between its Departments, the FMP proponents and other agencies in respect to the provincial forest ecological and management effects monitoring. In the 1990s, a special Scientific Advisory Board was established to develop the province-wide forest ecosystem monitoring (later a forest management effects monitoring) system²⁴⁹ (see SFIM-SAB 2002). SE and forest industry actively participated in the process.

SMLP worked and committed to work with the Provincial Forest Ecosystems Monitoring Task Force to develop improved and cooperative monitoring and management approaches (SERM & SMLP 1999; SMLP 1997c). In line with this SMLP’s commitment and the new FM Planning document Weyerhaeuser participates in the provincial FM Effects Monitoring Program and annually reports on the indicators agreed under it to the PP Area Forester, SE. However, the interviewees report the lack of integration between the FM Effects Monitoring Program and the FMP’s sustainability impacts monitoring, i.e. SEA follow-up (e.g., 3J, 3H). Different data storage and processing formats used by the Company and the Forestry Service, SE do not allow manipulating the data as needed. This problem is acknowledged by both side and steps are planned to establish a common information database (3G). Thus, despite the government-industry efforts to create favourable preconditions for ‘exterior’ integration of FMPs’ monitoring frameworks with the existing provincial ones, SEA follow-up, as an inherent part of the PP FMP delivery process, is merged with them to a limited extent.

2.2. Process dimension

This SEA follow-up dimension is analysed based on the documents, interviews, correspondence and consultations held in Saskatoon, Regina, and Prince Albert. When applicable, the variables are examined and graded in terms of both the extent to which they have been envisioned and implemented. The analytical summary and grades are presented in Chapter 6 and Appendix J.

2.2.1. Statement of SEA follow-up rationales and goals for different planning tiers and decision-makers

In Saskatchewan FMPs establishing goals of SEA follow-up is both negotiation- and regulation-driven. The cascade of SEA follow-up rationales and goals of the PP FMP in relation to the main stakeholders such as the Company, SE, the public, is rather clear. The Project Specific Guidelines, the approvals under the EA Act and the FRMA, and the FMA stipulated general rationales of the Government and proponent for SEA follow-up. The EA monitoring proposal and the FMP set specific goals for SEA follow-up at both strategic and operating levels and link them to follow-up rationales

²⁴⁹ The Board’s task was to develop a framework for forest ecosystem monitoring program that would fits into the existing planning processes in Saskatchewan.

and goals of higher-order strategies, such as the regional PP IFLUP and other provincial and national strategies and FM planning standards²⁵⁰.

The goals and rationales of SEA follow-up are the same as these of monitoring and follow-up to the FMP itself. Namely, monitoring and research proposal of the EA aimed to detect and understand the differences between actual outcomes and the outcomes forecast in the FMP, provide the basis for its review/amendment and support SMLP's vision of continuous improvement in sustainable FM practices (SMLP 1997c,155). It was embraced by the goal of the FMP's monitoring and research program, which was to "[a]ssess the achievements of actual forest practices relative to the Plan, and the actual impacts on key parameters relative to the EIS" (SMLP 1997c,49), and its ca. 11 monitoring/review actions.

Interestingly, a two-directional principle of shaping goals was exercised when proposing follow-up programs to the PP FMP and EA (Gachechiladze *et al.* 2009). The goals and objectives for follow-up program were dictated from the top of the forest planning pyramid (e.g., national performance monitoring) and were put in the regional context where they absorbed bottom-up contributions from the local communities (e.g., 3D, 3F, 3G, SERM 1998b; SMLP 1997b; SMLP 1997c).

2.2.2. Early screening and scoping for SEA follow-up

Whether to carry out EA follow-up activities or not was decided at the outset of the PP FMP process. The FMA, approvals under the EA Act and the FRMA and the Project Specific Guidelines formally required preparing SEA follow-up regardless the absence of specific requirements in the EA Act.

Initial scoping for SEA follow-up took place during the early stages of the integrated and iterative preparation of the FMP and EA. The integrated FMP and EA follow-up program was detailed later to include particular actions and management strategies for negative impacts identified by the EA. Follow-up issues, boundaries, and objectives were delineated in general terms by the approvals conditions and Project Specific Guidelines²⁵¹.

The FMA more specifically set the scope of EA follow-up and obliged SMLP to inter alia revise the 20-year FMP within 10 years or sooner depending on the level of disturbance to forest ecosystem, annually revise operational plans, annually compare the actual and predicted harvest volumes; and conduct stand-level regeneration stocking and performance surveys (SERM & SMLP 1999).

2.2.3. Specified design, methods, and coherence of SEA follow-up steps: formulation and implementation

2.2.3.1. Monitoring

The SEA and the FMP monitoring is made of two monitoring types, namely, of type B "monitoring of actual implementation activities within the strategic initiative" and A3 "actual impacts of the strategic initiative" and A2 "progress towards strategic goals" (Chapter 2)²⁵². Relative to types B and A2, both the PP FMP proponent and SE monitor the implementation of the plan in terms of its compliance with the FMP itself and with the approvals' conditions, current legislation, and provincial manuals. To accomplish this largely conformance type of follow-up, SMLP envisioned periodic internal (self-

²⁵⁰ The goals and rationales of SEA follow-up had a bearing on sustainability principles mentioned throughout the FMP and EA documents. According to the consensual opinion of the interviewees, one reason for this may be that SEA follow-up advocates sustainability principles in managing forest resources of the PP FM Area. Presumably, the notable recognition of links between sustainability and follow-up to forest initiatives has derived from the long history of sustainable forest management ideas in Saskatchewan.

²⁵¹ E.g., the Project Specific Guidelines directed the Proponent to prepare "monitoring and research" programs in order to: Fill in data gaps required to assess potential impacts; Assess the impacts of proposed harvesting practices on forest ecosystem; Determine the effectiveness of mitigation measures; Study the feasibility of alternative practice; involve the public in monitoring and research activities (SERM 1996,17-18).

²⁵² 'Monitoring of the relevant activities of other strategies' under type C (Chapter 2) was not formally articulated, however it took place via information exchange with other strategies in the province.

audits and external audits, while the government was to commission an independent audit (SMLP 1997c). Further, SMLP committed to at least annually report to SE about the “progress towards SMLP’s sustainable management goals based on the indicators identified” (SMLP 1997c,69). In terms of ‘A’ types of monitoring, SMLP envisioned assessing the performance of the FMP through monitoring of the appropriate indicators and reporting upon their status at specified intervals. SMLP also committed to a sort of ‘area-wide monitoring’ of some indicators indicative of the health and integrity of particular forest ecosystems as agreed with the provincial ecosystem monitoring program²⁵³. The FMP and EA did not envision monitoring of broader external trends or assumptions behind the FMP.

SEA follow-up and environmental component. An integrated EA and FMP development resulted in a single monitoring framework which makes it impossible to compare the EA and FMP monitoring indicators. However, it should be mentioned that noise and air pollution as well as climate change factors were not considered in the EA. The EA recommendations and mitigation measures were incorporated in the FMP management strategies and SMLP committed to fulfilling these on a par with conducting site-specific pre-harvest assessment procedures.

Methods and role schedules are not detailed in the main FMP and EA documents. Whereas the FMP’s ‘Inventory, Monitoring and Research’ program, its plans and guidelines provided a generic specification of monitoring elements, the elaboration of specific monitoring indicators, targets, methods and guidelines was left to operating plans. The rationale behind this was that whilst some monitoring indicators were based on a sound scientific basis and their measurability and interpretability was straightforward, others required several years of implementation practice, monitoring and evaluation to adjust indicators, methods and techniques. Meanwhile, operating plans themselves were often selective with regards to monitoring methods, describing monitoring procedures for some indicators and not presenting monitoring schedules for others. This referred not only to bio-physical SEA follow-up, but also to socio-economic objectives and indicators, the monitoring methods and techniques for which were especially under-considered.

Implementing conformance follow-up with the provincial and national standards and the approval conditions and specific guidelines is the predominant part of the PP FMP SEA follow-up. Operating plans are complemented by systematically prepared internal technical monitoring protocols and reports on socio-economic indicators (3J). The responsibilities for collecting and reviewing data on spot rest with the designated Companies staff members. Some data are collected externally or periodically obtained from SE and other local authorities and services (3J). Different people in the Company are in charge of preparing various parts of operating plans and annual progress reports, e.g., socio-cultural reports come from socio-cultural staff; harvesting information comes from operating units, etc. (3J). Afterwards, the parts of the reports are filed into one document and submitted to SE. They are also used for other internal Company’s documentation. Data are collated internally using mainly Microsoft Access and arranged to different databases to be used for internal evaluation, annual progress reports for SE as part of 5-year operating plan and annual reporting to the Area Forester, SE on the indicators agreed under the Forest Management Effects Monitoring Program (3J). Often different data storage and processing formats used by the proponent and the Forestry Service, SE are not fully compatible, which restricts the data from being comprehensively manipulated. This problem is acknowledged by both sides that plan to reconcile it through e.g., establishing a common information database. Overall, in SEA follow-up both compliance and wider socio-economic and environmental indicators are monitored.

2.2.3.2. Evaluation

The type of SEA follow-up evaluation can be classified as a combination of three evaluation tracks, i.e. impacts evaluation, goals-achievement and performance evaluation (Chapter 2). The objectives

²⁵³ The program aimed to provide information on the impacts of FM activities on forest decreases, soil, water, forest, and wildlife components of the forest ecosystem.

and types of EA follow-up evaluation are logically based on SEA monitoring in line with the FMP monitoring review and evaluation program.

Methods to evaluate monitoring data on different indicators were not explained in the FMP and EA. Rather the internal procedures logically bound them to monitoring methods, so that monitoring data could be translated into information useful for operations and managerial decisions (3J). According to the proponent, “there is little sense in collecting data if analysis methods are not determined beforehand” (3J). To avoid excessive expenses the industrial Company strives to coherently link methods of data collection and evaluation. However, in some cases it is impossible to smoothly link these. For instance, some several-year monitoring studies were pending analysis due to the specific knowledge required and usually took a long time to be evaluated and interpreted. Such kind of studies rarely had pre-specified analysis methods. In some cases Weyerhaeuser tended to wait for monitoring and evaluation methods to be developed within the provincial monitoring program (e.g., Weyerhaeuser 2001). People responsible for collecting or reviewing monitoring data might not be the same who analyses and reports the findings. Depending on the type/area of monitoring data, its evaluation is done either internally or externally.

Overall, the lack of clear evaluation and analysis methods has been a weak link in the follow-up actions chain hindering timely and cost-effective decision-making (also Gachechiladze *et al.* 2009). This was exacerbated by the lack of common data frames for data storage, collation and reporting to be used by the FMP and EA follow-up stakeholders. For example, the forest ecosystem effects monitoring team of SE forest service has to manually transfer the data from the Company’s formats to their formats of Access Microsoft Office (3H). Also, protocols that are jointly developed for certain indicators by SE, industry and the public are, however, differently studied and analysed by various harvesting contractors, different organisations or contracted experts.

2.2.3.3. *Management*

The SEA follow-up and FMP performance management types can be viewed as a combination of Type I ‘decisions on revising/renewal a PPP’, Type II ‘direct implementation actions’ and Type III ‘activities formally controlled by a PPP’ decisions (Chapter 2). Follow-up management responsibilities were not clearly described in the EA and FMP documents, which in the light of the change of the proponent, partly lost its relevance. Presently, there are three management levels in Weyerhaeuser primarily involved in the implementation of the FMP and EA follow-up, i.e. the plan manager, mid-management and operation staff responsible for ground level actions/decisions. The FMP’s management at all levels relies on the monitoring data and evaluation findings for their short-run and longer-run decisions and actions. The idea that the preceding EA follow-up activities, i.e. monitoring and evaluation, serve as the platform for meaningful management actions is highlighted by the Company’s staff (3J). The operational management is in charge of making tactic decisions based on the ongoing monitoring and primary data review results (Types II and III). It can also propose improvements to monitoring and evaluation technique, methods of sampling, etc. Mid-management relies more on the profound analysis of information for making longer-term ‘strategic’ decisions and suggesting amendments/revisions to the FMP (Types I-III). For taking informed decisions, Weyerhaeuser’s staff also liaise with various management levels at SE departments, e.g., regarding to operating plans and the FMP delivery progress they cooperate with Area Foresters, SE; with regard to provincial monitoring program-with the representatives of Forest Service, SE, etc.

2.2.3.4. *Communication and reporting*

Formal requirements for follow-up reporting including the subject, contents and intervals are contained in the approvals conditions, regulations and Project Specific Guidelines. They require the proponent to involve the public in implementation activities and provide opportunities for public inputs and reviews before each operating plan is approved. In this respect, the FMP and EA document envisioned two communication-related strategies, i.e. Public involvement in management planning and Public involvement in implementation (SMLP 1997c). The second one is especially relevant to

‘dissemination follow-up’. Within it SMLP, in consultation with SERM, the Pasquia-Porcupine FM Advisory Committee (FMAC²⁵⁴) and other users, identified procedures for involving the public “in the development, implementation and post-implementation review of Operating Plans, on an annual cycle” (SMLP 1997c,xvii). These included public meetings to review and discuss the previous year’s operations and the draft operating plan; additional meetings with Aboriginal communities, presentation of the Plan at local and area trade fairs; formal review with SERM of issues arising from public consultations; meetings with councils or rural municipalities, etc. (SMLP 1997c,xvii). According to the documents and interviews Weyerhaeuser implements the public involvement strategies as intended. The FMAC, being a representative of many communities and interest groups, serves as a mediator between the Company, SE and the public.

The continuity of information flows is secured throughout the strategy life-cycle. One minor weakness is that follow-up communication and reporting are more meetings- and reports-based and do not provide for a possibility to review annual reports/operating plans online. It is only now for the update of the PP FMP, when Weyerhaeuser decided to create a website that would describe the new FMP development process and contain downloadable versions of draft and approved FMP documents (see Weyerhaeuser 2009b).

2.2.4. Integration of SEA follow-up with the strategy implementation

EA was carried out simultaneously with the formulation of the FMP and illustrated a high degree of integration beneficial to its stakeholders (Noble 2004a). According to the proponent, “the EA and FMP were in fact one document and any negative impacts identified by the EA were mitigated by the managerial measures and decisions in the FMP” (3J). The integrated document contained sections with inventory, monitoring and research program, which incorporated most EA follow-up activities in the FMP monitoring and evaluation program. Several more EA and FMP monitoring-related aspects were identified later under the EA Act and the FRMA approval conditions and were incorporated in the FMP delivery separately (3J).

SEA follow-up strategy of SMLP was developed in consistency with both the industrial procedural performance standards and Sustainable FM principles. Continuing this line, Weyerhaeuser conducts monitoring and internal periodic audits of ecological, social-economic and industry-specific aspects to verify compliance of its operations with the FMP, the FMA, CSA standards for sustainable FM, and other legal requirements.

In 2001, the Company set up the EMS ISO 14001 to support the ongoing environmental follow-up practices and facilitate their continuous improvement. According to the interviews, the absence of a formal integration of the EMS framework with that of CSA within the FMP delivery resulted in overlapping/duplicating monitoring, assessment and reporting efforts (3B, 3J). This also led to the excessive use of the Company’s resources. The issue was attempted only recently through a stepwise EMS and CSA integration model (Figure I:8).

²⁵⁴ The FMAC was appointed in 1995 by the SERM Minister and was made up of representatives of stakeholder groups in the region (SMLP 1997c). The FMAC generally meets quarterly; it is actively involved in the implementation of the IFLUP and provides resource management advice to SE and Weyerhaeuser (see SE 2002).

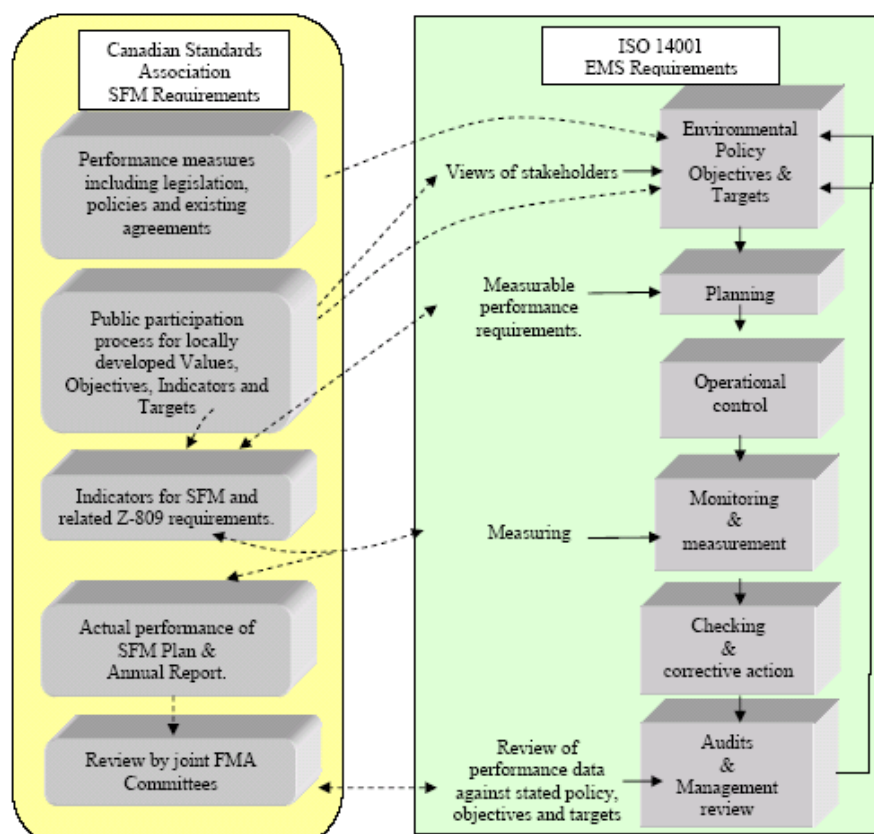


Figure 1:8 Weyerhaeuser's integration model of the EMS with CSA requirements

Source: Weyerhaeuser (2007,7).

2.2.5. Consistency of SEA follow-up targets and standards with those of upper, low, or horizontal strategies (Explicitness of tiers)

The PP FMP and SEA follow-up are implemented in a hierarchical planning system, the tiers of which conform to national and provincial FM standards. The specific targets of the mitigation and follow-up activities of the FMP are consistent with those of the regional PP IFLUP (see SERM 1998b; SMLP 1997a; SMLP 1997c). For example, the PP IFLUP identifies certain areas with distinct ecosystem features to be protected with minimal or no disturbance allowed, and uses these areas as benchmarks for disturbances. To be consistent with this provision, the FMP also sets monitoring targets to ensure protection of an equivalent proportion of productive forestland within the FM Area. The lower-level operating plans are developed to be consistent with the standards, guidelines and targets of the upper level strategies (e.g., 3I, 3J, 3B, 3A). They, for instance, set and monitor targets, consistent with the FMP, ensuring protection of a proportion of each harvest area within individual operating units (SMLP 1997b)²⁵⁵. Some inconsistencies might arise due to the lack of knowledge, timeline of planning processes or planning uncertainties²⁵⁶. Consistency with the related horizontal strategies is weaker (see above).

²⁵⁵ The PP IFLUP identified the Resource Protection Areas to be used as benchmarks against other areas of the FM Area. Correspondingly, the FMP set the targets to protect around 9% of productive forest land within the FM Area as a territory designated to the Saskatchewan Parks and Representative Areas Network systems. In line with that, the operating plans established even stringer targets, i.e. to protect 12 % of the lease area from harvesting, and defined the areas within the operating units that should stay intact (SMLP 1997b).

²⁵⁶ Certain reservations exist about the consistency of the FMP performance with its initial and the IFLUP's targets due to a changed harvesting practice. For example, the patch size distribution is inconsistent with the baseline data and is characterised with larger harvest patches (250-1000ha) with a domination of mid-range (20-80ha and 80-250ha) patches (>75%) (KPMG 2006). However, no exact targets exist for patch size distribution as

Currently, the preparation of the 20-year renewal FMP is underway. It aims inter alia to revise targets and goals of the first FMP and its follow-up programs and to dovetail these with the updated targets of the IFLUP and the Sustainable FM Plan for two Weyerhaeuser's FMPs and with a recently issued FM Planning Document.

2.2.6. Assurance of open stakeholder cooperation and coordination including consensus building on SEA follow-up method and procedure

Cooperation with the authorities, agencies and the public. During the last decade, stakeholder participation and input to EA has generally improved in Canada demonstrating more shared decision-making approaches, however true meaningful involvement is still rare (Lawe *et al.* 2005). Cooperation processes in SEA follow-up seem to be rather effective as they build on the collaboration platform established in the course of the FMP and EIA preparation. They included two-way communication between SMLP and the Human and Community Development Committee, Government agencies, First Nations, tourism groups, and the FMAC on the FMA and EIS preparation, community needs, employment, training, etc. Establishing connections with Aboriginal groups was challenging (see SMLP 1997a) and their involvement continues to be problematic.

One of the FMP's goals was to "Ensure that all those who may be affected by the implementation of operational Plans have the informed opportunity to provide input and review before each Plan is approved, and during implementation." (SMLP 1997c,12). This goal's realisation strategies became part of the integrated FMP and SEA follow-up implementation and drew upon the above mentioned cooperative activities. E.g., the FMAC has continued to be actively involved in the FMA and SEA follow-up delivery; so has been SE as many of the FMP strategies and the associated indicators and actions require close cooperation with its departments.

Cooperation with contractors. The FMP and EA preparation included consultations with harvesting contractors, logging contractors associations that encompassed logging contractors and truck drivers including Aboriginal sub-contractors, etc. The transfer of knowledge and operating requirements to contractors was considered vital by the Proponent for the effective FMP and EA follow-up performance. Some conflicts arose in cases where commercial interests of the Company and its sub-contractors confronted.

Cooperation with the public during the FMP implementation and reviews/renewals was envisioned in the FMP's public involvement strategies, which are implemented by Weyerhaeuser. Furthermore, when preparing site-specific plans, the proponent conducts consultations with the relevant communities and individuals using the previously established GIS database²⁵⁷.

Consensus building. The PP FMP process provided for stakeholders negotiations and dialogue regarding follow-up issues during both the preparation and implementation of the FMP/EA. The proponent compiled indicators for assessing ecosystem and diversity and measuring maintenance/enhancement of forest ecosystem conditions from those proposed by the CSA and developed locally (see SMLP 1997c). The PP FMP follow-up has evolved around the idea of cooperative and coordinated monitoring through participating in the provincial monitoring program which inter alia aimed to develop and reach consensus on appropriate variables, indicators and methods for sustainable FM. However, there are a number of stumbling-blocks upon which the consensus by all stakeholders has not been reached. For instance, in relation to baseline monitoring the public was unclear about and dissatisfied with the choice of Representative Areas within the Network²⁵⁸, proposed by SERM and accepted by SMLP (3F).

the baseline data on natural disturbance patterns is limited and as far as the new EA has not identified negative impacts, the FMP is still consistent with other strategies in terms of its target and goals (e.g., 3J, 3B, 3G).

²⁵⁷ This GIS databases contained some 700 traditional use locales (see SMLP 1997c)

²⁵⁸ According to the definition, "Representative Areas Network" is composed of lands and waters selected and designated to represent the natural ecological and biological diversity of the province and managed to retain that

Leadership. Due to the peculiarities of the public-private (authority-industry) relationships, the leadership is shared between the Company and SE. The former holds the formal leader's role in implementing and taking forward the SEA follow-up and FMP programs, whereas the latter supports and directs these as needed/agreed.

2.2.7. Adaptability of a PPP and SEA follow-up

2.2.7.1. Feedback from subsequent decision-making to the initial strategy within the SEA follow-up scheme (organisational anchoring)

The FMP contained 39 strategies each of which included several actions and incorporated the EA findings, mitigation and recommendations. The performance information from the implementation of those actions and strategies as well as about changes to them is not fed back to the original FMP, rather it is fed into annual operating plans. They summarise the FMP and SEA follow-up delivery issues in progress and report and detail the projections for the following years' plans drawing on the received information. Overall, both the strategic planning and operating processes of the FMP/SEA follow-up delivery allow the information from subsequent decision-making, especially from lower operation levels, to be fed into future planning and management. This feedforward liaison is strengthened by a clear organisational anchoring maintained through the established implementation and cooperation structures.

2.2.7.2. Provisions for response measures to (non)deliberate situations or external changes

Deliberate adaptive management. As it has been mentioned, Saskatchewan forest planning has recognised adaptive management as a key principle for sustainable land use. Respectively, SMLP committed to "practice adaptive management to continually improve forest management" (SMLP 1997c,xxi). Deliberate adaptive management fits into the Proponent's environmental management routine. It was designed in the FMP and EA and agreed upon with the Province and the public to include planned actions such as management and harvest re-calculations and revisions of specific FMP targets and objectives (see SMLP 1997a; SMLP 1997c)²⁵⁹. The FMP implementers tend to incorporate the experience and information gained from monitoring and evaluation into adaptive decisions/actions. They are also committed to providing documentation to SE describing the adaptive measures (SERM 1999a,4) as part of "operating plan or as monitoring results become available" (Weyerhaeuser 2009a,47). The annual operating plans are used to remove/add some FMP or follow-up actions upon consultations with other stakeholders.

Adaptive response to external triggers has proven to be weak in the Pasquia-Porcupine experience. For example, in considering the industrial nature of the proponent, successful FMP delivery must be sensitive to broader economic fluctuations and changes at the global forest markets level. However, socio-economic targets in the FMP (SMLP 1997c) were not designed to track external changes, inter alia in the global market, partially because those were considered to be a part of the company's larger financial planning strategy (e.g., 3G). In 2005, due in part to changing global markets, approximately 700 direct and at least an equal number of indirect jobs were terminated in the region²⁶⁰. SEA follow-

diversity. [These Areas] act both as reservoirs of biological diversity and benchmarks for comparison with the more heavily utilised landscape" (SERM 1998b,85).

²⁵⁹ One of the FMP's objectives was to "Sustain future annual or periodic harvests for both softwoods and hardwoods in perpetuity at or above the calculated long-term even-flow level". The Company's adaptive actions to attain this objective included long- and short-term recalculations of harvest levels (using COMPLAN-a spatially based forest simulation model) every ten years, or sooner in case of significant disturbances, new data or practices (SMLP 1997c). Meanwhile, minor changes occurring to the intended harvest schedules during the implementation of operating plans had to be agreed on with the Area Forester (e.g., 3H, 3K, 3J, 3B). All amendments had to be systematically reported to SE and taken into account when developing subsequent operating plan. This information was also passed to the regional IFLUP's Strategic Implementation Team to be fed in its annual reviews/reporting (e.g., SE 2002, also 3H, 3J, 3K).

²⁶⁰ External factors, such as new lower cost competitors at the global forest market, over a 20% rise in energy costs, an increase in fuel costs, drop in the US Dollar value, had a direct implication for the FMP delivery (3A,

up appeared to be unable to timely follow the changes in the export-dependent FMP while emergent economic changes took place. The result was a climate of mistrust and social tensions in the region as well as questioning about the proponent's ability to maintain its sustainable FM practices and fulfil commitments as set out in the FMP and the government's ability to enforce compliance (3F). The continued downturn in the demand for forest products and changes in the value of the Canadian dollar on the global market has resulted in even greater job reductions and mill closures in the area. The absence of emergency plan in the FMP to react to external changes as they occur can also be considered a weak point of the FMP and follow-up (also 3A).

2.2.7.3. Revision of SEA follow-up if the contents of a PPP changes

Minor routine changes to SEA follow-up that derive from the operation necessity of the FMP, e.g., changes to monitoring methods or sites, are done by the proponent's operating and mid-management staff. Revising SEA follow-up to FMPs in case their contents *significantly* changes is legally regulated in Saskatchewan. The EA Act envisages situations when changes to developments, including FMPs, might occur that do not conform to the approval conditions and might have negative impacts on the environment, thus necessitating a supplementary EA (see Clauses 2 & 16 (1)). In the original FMP, for example, SMLP committed to constructing no more than 101 kilometers of all-season forest access road over the 1997-2019 operating period (SMLP 1997c). By 2002, however, certain road development limits had been exceeded and by 2005 the total road construction was near the FMP estimated threshold²⁶¹. The company justified the high road construction levels with a need to deliver an increased volume of timber and based on shifting harvest patterns. A change in development and a corresponding EA pursuant to the EA Act were prepared in 2005 to address changes to the original FMP targets and road management plans, with new targets being incorporated in operating plans and revised monitoring programs upon approval in 2006 (see Golder'Associates 2005; Weyerhaeuser 2005, also 3I, 3J, 3A). It was not without the public/NGOs pressure and SE's EA Branch and Forest Service advice that the Company embarked on preparing an EA to changes in the FMP and a Road Management Plan (e.g., 3F, 3A, 3B)²⁶².

2.2.7.4. Revision of a PPP if SEA follow-up reveals unexpected impacts

Responsiveness of the FMP's actions/decisions to monitoring and evaluation findings is institutionalised in Saskatchewan forest planning practice as part of adaptive management. The PP FMP's approval conditions under the EA Act require that:

3B, 3J, 3I). At the very advent of the daunting market signals the Company, heavily dependent on export to the USA, continued implementing the FMP as approved until the economic loss became significant (every \$0.01 increase in the Canadian Dollar value cost \$5 mln/annum to Weyerhaeuser's Prince Albert facilities) (3J). The Company decided to increase harvest volumes, extend the harvesting seasons and later to close down Prince Albert Pulp and paper mill (one of 25 mill closures across Canada) (3J). However, not all of these decisions were environmentally and socio-economically assessed to secure a proper SEA follow-up. When in 2005 the EA was prepared and submitted to SE Forest Service and EA Branch, the loss of around 700 direct and at least an equal number of indirect jobs in the greater Prince Albert region had already occurred (see GolderAssociates 2005; see Weyerhaeuser 2005). The interest groups immediately expressed concerns about the abilities of the Company to maintain the sustainable forest management practice (3F).

²⁶¹ The increase in harvested timber and seasonal shifts in harvesting patters were caused by the Company's new strategy to cope with changing market conditions while maintaining sustainable forest management principles (see Golder'Associates 2005; Weyerhaeuser 2005).

²⁶² A time gap is obvious between the dates of non-compliance with the approval conditions and of the endorsed annual operating plans and the approval of a new EA. On the one hand, Weyerhaeuser argued that it addressed SE with a proposal for changes as early as in 2002 and the detention in Development Change Plan and EA was due to the slow bureaucratic procedures at SE. On the other hand, Forest Service, SE argues that after it observed a tendency of exceeding road construction limits and received several public inquiries it required clarifications from the Company and involved the SE EA Branch. Despite this controversy, the positive aspect is that before any immitigatable environmental impacts took place, as a new EA showed, relevant mitigation and monitoring measures were proposed to be integrated with the ongoing implementation (see Golder'Associates 2005).

“Where monitoring indicates that ecosystem sustainability is not being maintained..., the proponent shall determine how the FMP must be adapted to ensure...the goal of sustainable forest management is achieved” (SERM 1999a,4).

The developers and later the implementers of the FMP committed to modifying the FMP if monitoring and follow-up reveal unexpected and/or significant effects caused by the FMP’s activities (see SMLP 1997c; Weyerhaeuser 2005). According to the interviews and documents, the analyses and interpretations of monitoring data have been used to adjust the FMP and FM practices as well as monitoring data collection protocols (e.g., 3J, Weyerhaeuser 2009a). The uncertainty about effects attribution, the lack of scientific knowledge and financial resources have been named as potential obstacles to timely and effective modifications of the FMP in response to the analysis of monitoring data, or scientific review regarding the forest ecosystem health (e.g., 3G, 3J, 3D). It is also acknowledged that larger changes to the FMP may call for a long negotiation/consultation process and require governmental approval(s) that cause response detentions.

2.3. Structural dimension

The summary and grades of nine structural variables of the FMP and SEA follow-up in Saskatchewan are found in Chapter 6 and Appendix J.

2.3.1. Statement of strategy (incl. follow-up) ownership and status of the proponents

That being said, the implementer of the FMP and follow-up is not the same organisation that has developed it. The FMP implementer, Weyerhaeuser, holds the principal ownership over the FMP and follow-up. Drawing on the tradition of close cooperation, it shares the ownership over certain (follow-up) actions or performance monitoring indicators with the provincial government and the FMAC.

The land users (local residents) within the FM Area also have a sense of ownership over in the FMP strategies and operations (3F). Many of them are involved in the implementation of the FMP and SEA follow-up as sub-contractors. The statuses of the FMP and follow-up implementers, i.e. the private Company, private-owned contractors, the public authorities, the public and the FMAC are clear.

2.3.2. Clear timing and position of SEA follow-up

2.3.2.1. in relation to SEA and its strategy formulation and delivery processes

The timing and positioning of follow-up in relation to the PP EA and FMP is relatively straightforward. No FMA existed for this FM Area at the time when the FMP was instigated and SMLP initiated a new planning cycle with support of a range of stakeholders. The province’s legal framework required that the shaping of follow-up programs be carried out before the FMP was approved (Figure I:9), and the implementation of follow-up decisions and programs be reflected in annual operating plans and the associated “rolling” five-year plans. The 20-year FMP itself requires updating every 10 years and follow-up programs are revised accordingly (e.g., 3J, 3I).

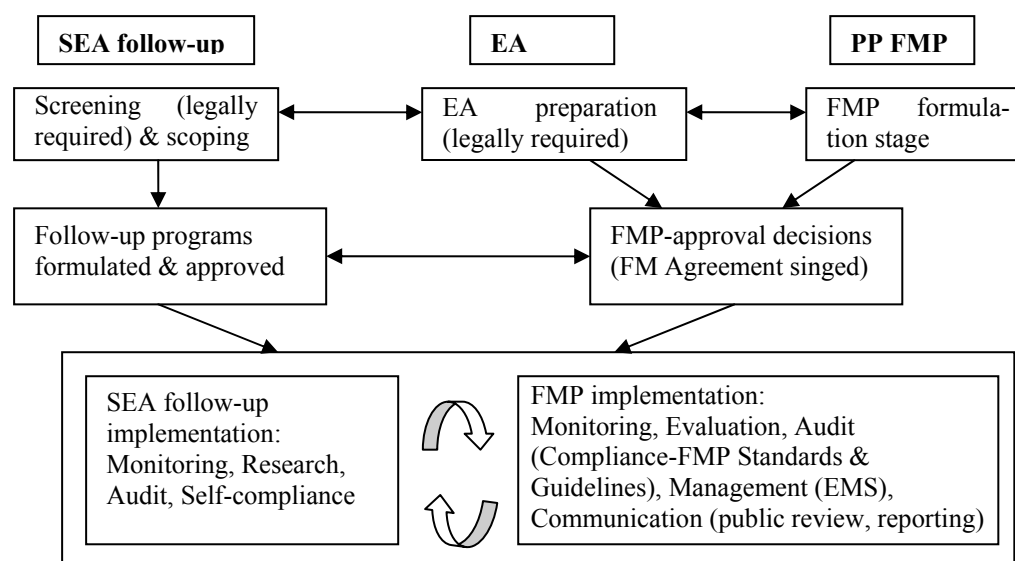


Figure I:9 Schematic relation of SEA follow-up to the Pasquia-Porcupine FMP and its SEA

2.3.2.2. in the broader context of upper, lower, or horizontal strategies and their EAs

In the broader strategies' context, follow-up reveals stronger hierarchical linkages to higher-order strategies, e.g., the national and provincial Forestry Accords, provincial Sustainable Forest Strategy and weaker links to horizontal forest strategies, i.e. other three existing Saskatchewan's FMPs-Mistik, Prince Albert, and L&M Wood Products.

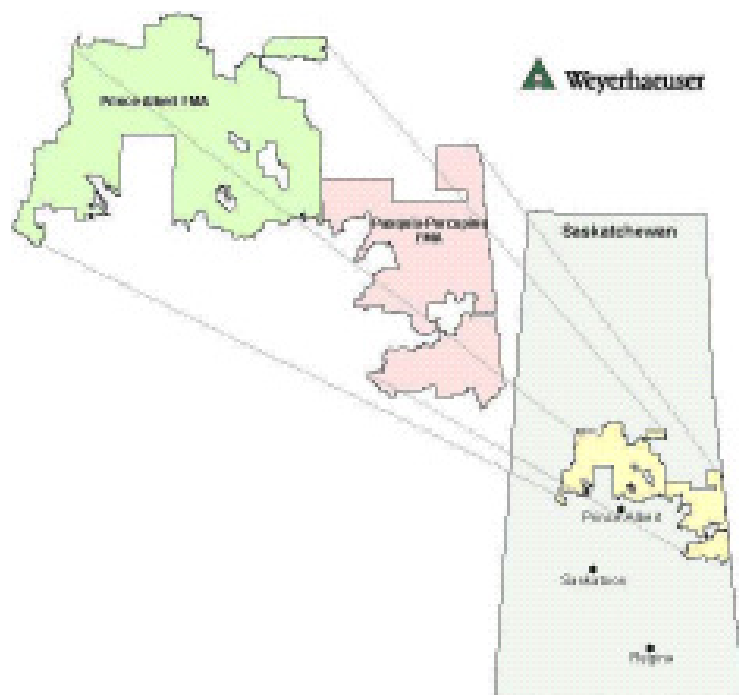


Figure I:10 Location of Pasquia-Porcupine and Prince Albert FMPs

Administratively, tiering reflects the downward integration of follow-up with implementation actions, decisions and monitoring through five-year operating plans and more specific site-based prescriptions and pre-harvest assessments. Upwards, the FMP and SEA follow-up flows into the province's Sustainable FM Plan and to the PP IFLUP, which, in turn, provides a framework for land resource management and use in the Pasquia-Porcupine planning area. This occurs in absence of any formal tiered system of PPP assessment; that is, neither the higher-tiered Sustainable Forest Land Use Plan nor lower-tiered site-specific operating plans are subject to separate EAs (Gachechiladze *et al.* 2009). Annual operating plans, for example, are managed at the regulatory level with consideration of the outcomes of the 20-year FMP planning process and the EA Ministerial approval conditions.

Horizontally, linkages have been weaker. For example, when Weyerhaeuser purchased the PP FMP, it was determined to integrate the FMP with its existing Prince Albert FMP in order to optimise wood fiber production (see Tice 2001) (Figure I:10). In 2005, it developed a high-level umbrella-planning tier, the Sustainable Forest Management Plan to cover both FMPs. Its follow-up reporting was harmonised with the new Provincial Forestry Planning Manual application based on the "VOITs"²⁶³ system to buttress sustainable FM principles. However, following years of bio-geo-physical

²⁶³ The "Values-Objectives-Indicators-Targets" framework was adapted for Saskatchewan based on the public consultations. It draws on a set of variables and indicators suggested by the Canadian Council of Forest Ministers in "Defining Sustainable Forest Management in Canada: Variables and Indicators 2003". The framework covers six variables: Biological Diversity; Ecosystem Condition and Productivity; Soil and Water; Role in Global Ecological cycles; Economic and Social Benefits; and Society's Responsibility for Sustainable Development (e.g., SEFS 2007).

monitoring and baseline work for the two FMPs, there remained few connections between the two FMPs, only limited sharing of experiences with management practices, no account of trans-area effects management, and no joint monitoring efforts (3H, 3K). The two FMPs as approved were based on two different forest management models and proposed different follow-up and monitoring approaches. One reason for the absence of joint monitoring schemes for two adjacent FMPs of Weyerhaeuser is that the areas have distinct bio-physical, environmental and socio-economic baseline conditions (3J). Cooperation and exchange of monitoring programs information between four FMPs is in principle possible if they formally address each other; however so far such formal cases have not been recalled (3I, 3J, 3K).

2.3.3. Acceptance of roles and responsibilities and accountability in SEA follow-up

While follow-up roles are not mentioned in the FMP, they are internally and procedurally divided between the FMP implementers and stakeholders based on the established cooperation patterns and provincial (public) and industrial (private) values and objectives, thus contributing to an increased commitment of the actors (see sections on ‘cooperation’ & ‘commitment’). The company’s personnel are responsible for the certain monitoring, aggregation, management and reporting tasks, which are distributed according to competences and qualifications of people regardless their position in organisational management hierarchy. E.g., Strategic Planning Coordinator holds a general responsibility for the 20-year FMP implementation and renewal as well as for monitoring of some environmental and CSA indicators and preparing the corresponding reports (3J). The company is accountable to the provincial government and the public relative to follow-up and FMP performance indicators. The corporate and personal accountability for follow-up actions and FMP performance as well as acceptance of follow-up responsibilities is recognised by the proponent as essential for the effective FMP and follow-up delivery (3J). Despite the twice changed ownership of the FMP, the willingness of the industry to be on-track and respect the relevant regulations as well as the generic/specific control by SE prevent a so-called ‘diffused’ responsibility problem from developing (Chapter 4).

2.3.4. Transparency for SEA follow-up delivery activities

A variety of mechanisms were designed in the PP FMP to provide for transparency of SEA follow-up framework ranging from purely technical (common databases, detailed accountability) to more participatory ones (reviews, direct involvement). As the documents and interviews confirm transparency was given a special consideration at the outset of the planning process. The PP FMP and SEA follow-up illustrate a careful approach towards balancing and combining transparency-aiding methods for their integrated delivery processes and encompass:

- expert judgments (independent audits with publicly available results; annual audits of Weyerhaeuser’s ISO 14001 EMS and the CSA Sustainable FM System; analysis and verification of monitoring data by external consultants, and inspections by SE or municipal officers),
- technical measures (participation and use of provincial standardised and approved monitoring procedures and protocols, creation of common databases for ecosystem studies and support in GIS forest implications development), and
- participatory processes (annual public and provincial reviews and comments on operating plans, comments from the FMAC and quarterly meetings (see Section 0)).

The implementation of the above processes, despite their deliberateness, encountered a number of institutional and procedural problems, such as accuracy of reported data, logistics for meetings, or non-applicability of protocols to actual FM situations. These obstacles are being attempted by the implementers in a pragmatic “learning-by-doing” manner.

Transparent SEA follow-up also benefits from a clear formal apportioning of responsibilities among the FMP stakeholders and their commitment to the assigned tasks.

2.3.5. Commitment to SEA follow-up and acknowledgement of non-compliance

The proponent and the government recognise that SEA follow-up process requires continuous fulfilment of commitments. The industry-led integrated FMP/EA contains specific follow-up commitments for the proponent as well as involvement opportunities for the public. Additional

commitments are delineated in the broader IFLUP for both the proponent and SE. Furthermore, a recently prepared joint Action Plan stipulates commitments of the Company and SE in relation to adaptive management actions required in response to the issues identified by the independent FMP performance audits (see SE & Weyerhaeuser 2007).

Neither the FMP, nor the EA explicitly note the consequences of non-implementation of follow-up programs; however, the implementation of monitoring and research activities is an obligation stipulated in the FMA. Failure to comply with follow-up and mitigation commitments can result in a range of penalties from fines to withdrawal of licenses and termination of the FMA itself.

The threats of non-delivery of follow-up were recognised by the proponent early in the FMP/EA-making, e.g., in 1997 during the FMP/EA public review meeting SMLP declared: “It is in our best interest that we implement what we are proposing [monitoring] or we will not be granted a renewal” (SMLP 1997c, Appendix II).

Declines in environmental performance or operations and the non-implementation of certain monitoring and mitigation commitments, for example, are connected with non-compliance with the FMA and other national/provincial forest standards. Such non-compliance may also lead to cancellation of EMS and CSA certificates, negatively affecting corporate image and reputation at the international scale. The Company is particularly concerned with financial losses that may result from non-compliance with the FMA terms, approvals conditions and national/provincial standards²⁶⁴. At the operational level, the minor cases of non-compliance are mostly investigated and resolved through actions taken internally. More serious infractions are examined and discussed by the stakeholders to work out suitable solutions, e.g., granting an extension, preparing collaborative action plans, etc.

2.3.6. Competence (managerial) and adequate resources for SEA follow-up

The feasibility of SEA follow-up was addressed early in the integrated FMP planning process as well as the creation of sufficient competence for its delivery. Strategies for acquisition and maintenance of necessary monitoring equipment, training and educating personnel, conducting seminars, tours, and workshops for the local communities, and providing technical support were entrenched in the FMP and its follow-up plans (Gachechiladze *et al.* 2009). However, budgets for follow-up were not set out in the FMP.

Within the Company, “there are only 16-17 people that do everything” including the preparation, implementation, monitoring, evaluation and management of the FMP and SEA follow-up and generation of feedback on follow-up to different stakeholders (3J). Although the capacities and qualifications are in place, the interviews with both the proponent and regulators suggest that the human resources as well as technical and material procurement are limited (e.g., 3J, 3A, 3B, 3H). Certain monitoring and evaluation tasks, such as identifying appropriate sampling plots or inviting experts to analyse data required several times higher levels of time and financial investments than was initially planned by both the government and the proponent. Primarily through funds diversion and reallocation of financial and expert resources, both within the industry and between the proponent and the provincial government, it was possible to meet these additional demands for resources. Consequently, however, there emerged a considerable public concern that government was over-delegating research and monitoring functions to industry, the result of which was a reduction in government capacity to regulate and reduced ability to fully guarantee that monitoring data received from industry were reliable (3F). In this respect, the public and SE stakeholders to the FMP agree that there is a need for “an increased monitoring capacity in public sector” (3F, 3E).

2.3.7. Networking for credibility and mutual trust

Within the Company, the exchange of experiences and follow-up data is accomplished both formally and informally. Formal networks comply with the organisational structure and procedural subordination. Against this background, informal networks function well owing to the small size of the

²⁶⁴ The fear of a financial loss sometimes overweighs the realisation of threats to the environment/communities.

proponent's office in Saskatchewan and variety of cross-cutting and supplemental activities that its personnel fulfils to deliver the FMP and SEA follow-up.

In the broader setting, the PP FMP's networks are maintained through various formal interactive processes such as forums, seminars, presentations, workshops and meetings that involve a range of stakeholders. These take place during the delivery of the FMP and follow-up and build on the networks and cooperation processes established *for/during* the development of the FMP and EA. Informal network that support the implementation of the FMP and follow-up are identifiable between the industrial proponent, various ministerial branches and the public. A lot of efforts are put in these cross-actor networks, either formal or informal, that in turn enhance mutual trust and at times the credibility of the FMP, its follow-up and of the responsible actors themselves²⁶⁵.

2.3.9. Provisions and possibilities for capacity-building (education, training)

Trainings and educating activities for the FMP's permanent and contracted personnel and seminars, tours, and workshops for the local communities are intrinsic elements of the PP FMP and its follow-up (SMLP 1997c; Weyerhaeuser 2007). Some educating and capacity-building activities directly stem from the EA recommendations and were integrated in the follow-up. For instance, one of the identified negative impacts of the PP FMP was an increased risk of human-caused fires and in this light the EA proposed mitigation measures that would educate workers and the publics (SMLP 1997c). The strategy to implement the EA mitigation included assisting SERM in fire suppression with personnel and equipment; maintaining appropriate and current fire fighting equipment for all contractors and field staff; submitting annual fire protection plans; training personnel in basic fire suppression, working with SERM through public education to address people-caused fires, etc. (SMLP 1997c, 34-35). In fact, the proponent and SE committed to providing each other with technical and human support, if needed (e.g., 3B, 3J).

The mentioned educational elements describe individual/collective capacity-building *during* the FMP and follow-up delivery, however they do not detail training for personnel *for* implementing the FMP and follow-up. On the one hand, follow-up was designed based on the existing capacities of SMLP and was later adjusted to those of Weyerhaeuser (3J). On the other hand, follow-up contains many science-based elements, which while can be collected internally are often subject to external analysis. Given this need for specific knowledge, institutional brokering and involvement of independent or provincial ministerial consultants has been widely practised.

2.4. Context dimension of SEA follow-up in the CASP

10 variables of the SEA follow-up context dimension for the Canada's Capital Area's CASP are analysed based on the interviews, document analysis and personal correspondence with the key case stakeholders. The summary of the CASP variables' evaluation alongside the assigned grades can be found in Chapter 6 and Appendix J.

2.4.1. Existing planning and policy-making practice and the SEA system in the NCC

2.4.1.1. Planning type and policy framework for SEA/follow-up

The NCC exercises a four-tier land use planning and development hierarchy on the federal lands in the NCR. The long-term visionary Policy Plan, e.g., for Canada's Capital, is a higher-order policy at the apex of the urban planning pyramid (Figure I:11) (NCC 1999c). It is followed by Master Plans that provide more detailed policy guidance for specific areas of the NCR, e.g., the Master Plans for Gatineau Park (1990) or Greenbelt (1996) (NCC 2005a). Next, Sector Plans apply the policies to specified geographic areas to address long-term development, environmental and individual structures, green spaces, circulation, heritage, and visitor objectives (NCC 2005a). Such is the CASP developed within the Urban Lands Master Plan boundary. Finally, Area Plans provide the greatest level of detail of all the plans in the hierarchy and apply to smaller geographical areas.

²⁶⁵ In cases when the actions of the proponent relative to the FMP and follow-up commitments differ from what was planned, mistrust from the interest groups and credibility concerns arise immediately.

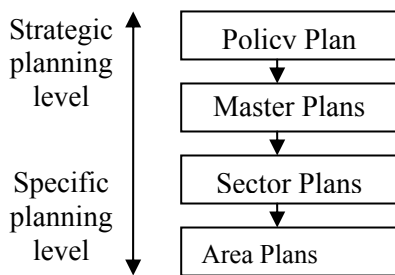


Figure I:11 Land use planning hierarchy of the NCC

The policy framework for SEA originates from the EA and Review Process of 1973 and its Guidelines Order (1984) (see Noble 2002; Noble 2009; Sadler 2005a). They laid a foundation for a formal establishment of SEA through the 1990 Cabinet Directive (amended in 1999 and 2004), that required federal departments and agencies to environmentally assess their proposals before submitting them for Cabinet consideration²⁶⁶. The SEA Cabinet Directive is non-statutory, which means that Canada has no formal requirements for the SEA procedure (see Point on provisions and guidelines). In such a setting of the federal planning system individual Ministers and crown corporations are responsible for subjecting proposals produced by their departments/agencies to EAs.

In accordance with the Cabinet Directive the NCC's is obliged to conduct SEAs only when it makes a submission to the Cabinet and to Decisions under a Minister's own authority (CEAA 1999), which "happens infrequently" (4A). Meanwhile, the NCC has been traditionally incorporating SEA into the planning process of all its PPPs according to its internal EA Policy of 1995. The NCC's EA Policy commits the NCC to integrate environmental considerations into all plans, activities and decisions in the spirit of the Canadian EA Act and the SEA Cabinet Directive (see NCC 1999a). The policy recognises the need to conduct SEAs for initiatives under the Cabinet Directive and for those initiatives and events that are not covered by the Canadian EA Act or the Directive (see NCC 1999a). Accordingly, the Sector Plans have to undergo SEA.

Overall, the urban land use planning hierarchy in the NCC clearly provides for possibilities to conduct SEAs for its various levels. The NCC has practised strategic EAs in line with the federal policy framework for SEA and far beyond it. The planning and policy-making traditions of the NCC, in the context of which its early EA Policy has evolved, create favourable conditions for the SEA practice including follow-up.

2.4.1.2. Political commitment to SEA/ follow-up and influence

As described above, political commitment at the federal level to environmental protection, SEA and sustainability was expressed by a number of statutory and non-statutory documents in the 1970s-1980s (see 'formal provisions' below). The NCC has followed the commitments of the federal government by setting out its own environmental and EA policies. Through them, the NCC clearly committed itself to integrating the environment in its strategic decision-making processes and SEAs respecting the provisions of the Cabinet Directive and provincial SEA practices in Ontario and Quebec²⁶⁷.

2.4.1.3. Socio-economic preconditions for SEA/ follow-up

Planning in the Capital Area is based on numerous socio-economic and cultural considerations given that it is the conglomeration of political culture, Canada's cultural and natural heritage, mixed Anglo-francophone history, etc. The conscious approach towards SEA stems from the aspiration of the politicians, federal officers and the public to promote the attractiveness of the National Capital and to sustainably develop and preserve it for the future generations. Correspondingly, the areas that are

²⁶⁶ The SEA Cabinet Directive states that Ministers expect a SEA to be conducted when: "a proposal is submitted to an individual minister or Cabinet for approval; and implementation of the proposal may result in important environmental effects, either positive or negative" (CEAA 2004,1).

²⁶⁷ Apart from Saskatchewan, only Quebec and Ontario out of 10 provinces report recent SEA experiences (see Noble 2004b).

under the NCC's planning and management jurisdiction seem to "be the priority for federal interventions and investments, both human and financial" (NCC 2005a,4). This refers also to SEAs that are part of the NCC's planning process. The NCC is responsible for securing economic resources for preparing, administrating, coordinating and tracking its EA processes on a par with managing and protecting the environment (see NCC 2006).

From the point of view of the existing socio-economic factors, Ottawa-Gatineau in 2001 had one of the highest average income levels in Canada with unemployment rates below national average (NCC 2005a). The federal government's work force, including that of the NCC, was increasing over 2001-2005. While this supports the resource bases for SEA and follow-up, the NCC has to prepare and implement its initiatives, namely the CASP and its SEA and follow-up, "in a period of human and financial resource shortage" (NCC 2005a,1).

The growing public interest to environmental consequences of developments and a desire of interest groups to see SEAs for new initiatives (4D) also contribute to creating favourable socio-economic processes for the application of SEA and follow-up. Moreover, "there are many strong environmental NGOs interested in monitoring the [NCC] strategies" (4A), which in turn stimulates not only the conduit of follow-up to SEA, but also public participation in it.

2.4.2. Formal provisions for SEA/follow-up

2.4.2.1. Legislation and regulations

There are no legislated requirements for SEA and follow-up at the federal level. To some extent, the NCC guides its strategic EAs according to the project level Canadian EA Act (1992, last amended in 2005)²⁶⁸, which clearly requires follow-up programs.

When preparing its initiatives, the NCC needs to comply with the regulation of both provinces, on the territories of which it operates. Whereas both provinces have experience of preparing SEA and follow-up, only Ontario has legal requirements for SEA stipulated in the Ontario EA Act (1976, amended in 1997)²⁶⁹. While obliging the proponent to develop mitigation measures, it, however, does not provide for mandatory preparation and implementation of follow-up programs. These though may be required by the Minister in the approval conditions.

2.4.2.2. Manuals, guidelines and guidance for SEA/SA/SIA

At the federal level, the first procedural guidance for SEA was issued by the Federal EA Review Office, presently CEAA²⁷⁰, in 1993. The CEAA prepared new guidelines in 2004 for the updated Cabinet Directive, which clarified the roles of federal departments and agencies and required preparing a public statement of environmental effects for completed SEAs. The Guidance to the SEA Cabinet Directive is quite vague regarding SEA follow-up. It states that:

"SEA also should consider the need for follow-up measures to monitor environmental effects of the policy, plan or program, or to ensure that implementation of the proposal supports the department's or agency's sustainable development goals" (CEAA 2004,7).

The NCC proposals are assessed according to NCC Corporate Administrative Policy and Procedure for EA (1995, reviewed in 2006). The Guide to EA at the NCC (2006) and the NCC EA Manual (1996) support the application of the EA corporate policy and detail the EA process. Consultants and any proponents proposing developments on the NCR federal lands are required to comply with the NCC's EA procedures.

²⁶⁸ See <http://laws.justice.gc.ca/en/c-15.2/text.html> at the website of the Department of Justice, Canada.

²⁶⁹ The Ontario EA Act that requires SEA for provincial, municipal and selected private PPPs at their development stage (see <http://www.ene.gov.on.ca/en/eaab/legislation.php>).

²⁷⁰ CEAA is nominally responsible for administering the SEA process, providing advice to federal agencies, conducting trainings for federal staff, developing SEA guiding documents, etc.

While the NCC EA policies explicitly require preparing/conducting project-level monitoring and follow-up, they only generally recommend monitoring SEA mitigation measures for environmental protection and conducting other follow-up measures as needed (see NCC 2006). Nonetheless, they suggest that “SEA would be conducted in much the same manner as a project-level assessment under the [Canadian EA] Act but from the broader, overview perspective” (NCC 2006,5). This implies that SEA, similarly to EIA, should include mitigation measures, an assignment of responsibility for the implementation of mitigation measures and their monitoring; a decision respecting the need for a follow-up program to validate the predictions of EAs (NCC 2006,10).

2.4.2.3. Enforcement and compliance mechanisms

Enforcement of SEA and follow-up provisions is rather weak as there are no legal requirements for SEA and federal and crown entities are responsible for conducting and implementing SEA/follow-up. The Commissioner of the Environment and Sustainable Development oversees the application of SEA in general and periodically audits the performance of the federal SEA management system. According to the 2008 Commissioner’s report, compliance with the Cabinet Directive has been improving, however accountability and transparency are weak due to unclear responsibilities for central monitoring of compliance, quality control, and continual improvement of the assessment process (OAGC 2008,16). Thus, the state of enforcement and compliance mechanisms for SEA and follow-up has not changes since 2007 when Fischer (2007,75) observed that “whilst there is administrative and political support for SEA, the absence of legal support mechanisms, makes enforcement difficult”. In the NCC, various views on the utility of SEA are identifiable that influence its enforcement, namely “some people think that doing SEA is a waste of time”, while others “think it is very useful in terms of scoping-it really helps narrow down the proposal” (4C).

2.4.2.4. Formal distribution of responsibilities/roles

The Cabinet Directive and the CEAA Guidance outline the roles of the main actors in the SEA process, such as Cabinet, Ministers, Minister of Environment, Environment Canada, CEAA, Departmental and Agency officials. As a rule, federal departments/agencies and crown corporations, including the NCC, are responsible for both conducting SEA and following its recommendations.

The NCC policies provide for more detailed inter-organisational distribution of planning and SEA responsibilities. The responsibility for the oversight, coordination and application of SEA lies with the Environment, Capital Lands and Parks Branch, which has also developed/promulgated the Corporate Administrative Policy and Procedures for EA (see NCC 2006). The policies place responsibility to assure the conduct of EAs with the individual Vice-Presidents; retain approval responsibility with the Director, Environment Management and Protection; and, require endorsement of completed EAs by the individual Branch project managers (NCC 2006,14). Reporting and SEA follow-up roles are less clear as they are supposed to be detailed on a case-by-case basis by the Environment, Capital Lands and Parks Branch and that NCC branches, which initiate and deliver the strategies.

2.4.3. Formal compliance with sustainability principles

The NCC policy-making process is explicitly guided by sustainability principles according to both the federal policies and internal NCC policies (NCC 2005a). It perceives sustainable development as an “umbrella principle” that governs Capital and Regional planning principles (NCC 1999c,4). Therefore, sustainability principle and aspects are incorporated in every layer of the NCC’s planning hierarchy.

According to the documents and interviews the concepts of sustainable development was one of the Guiding Philosophies of the CASP (NCC 2005a). The environment and sustainability were placed on the top of political and public agenda of that CASP especially because of the national significance of the Core Area (4C). Moreover,

“Since the concept...of...sustainable development oriented the principles of the [CASP], [its] monitoring and evaluation should include a broader examination of progress in the Core Area towards sustainable development...”(NCC 2005a,166).

Thus, the value and importance of sustainability principles have been transposed to guide the CASP’s monitoring and management schemes. A long tradition of SEA practice at the NCC in the spirit of the

Cabinet Directive reflects its commitment to sustainable development. The conduit of SEA and follow-up as part of the planning and implementation processes of the NCC closely follows federal and internal sustainability policies, as well as formal provisions for sustainable development and international best practices (e.g., 4H, NCC 2005a; NCC 2008). This, for example, is reflected in the CASP's goals, principles, policies, indicators and SEA.

2.4.4. Possibility to incorporate SEA follow-up results in subsequent planning (adaptiveness)

While the principles of adaptive planning and management are not explicitly referred to in the NCC documents, the planning processes at the NCC take into account the dynamic changes in the socio-economic and natural environment. Correspondingly, they consider the opportunities to track the contextual trends and make the relevant changes to ongoing strategic initiatives. Mechanisms to incorporate the results of monitoring and evaluation observations generated when delivering a strategic initiatives and its follow-up are envisioned through the regular reviews or case-by-case reviews as triggered by external factors. The NCC is committed to continuous planning and responsive management of its strategic initiatives. This creates a rather favourable platform for accommodating the results of SEA follow-up, given that it is incorporated into the initiatives' own monitoring and performance management schemes.

2.4.5. Integration of SEA follow-up with existing monitoring systems

Neither the Cabinet Directive and Guidelines nor the NCC EA policies formally encourage an 'exterior' integration of SEA follow-up with existing monitoring structures. The CASP SEA does not add to this aspect. Nonetheless, some interviews suggest that there are various forms of ongoing monitoring; e.g., from regular water/air quality checks to socio-economic trends monitoring-at the NCC and other agencies that can be merged with or utilised for the CASP as needed (e.g., 4A, 4I). They also highlight that the CASP is a strategic document and a policy tool that due to its level of abstraction cannot be specific about which existing systems it can be integrated with (e.g., 4H). This cannot though justify the absence of any reference to the relevant ongoing external monitoring processes. Overall, as per the CASP monitoring and SEA follow-up frameworks no exterior integration of SEA follow-up is observed.

2.5. Process dimension

This SEA follow-up dimension's variables are analysed based on the documents, interviews and consultations in Ottawa. All variables, apart from the first three ones, are examined and graded in terms of both the extent to which they have been envisioned and implemented (see Chapter 6 for grades and evaluative summaries and also Appendix J).

2.5.1. Statement of SEA follow-up rationales and goals for different planning tiers and decision-makers

According to the SEA and CASP documents SEA follow-up is primarily understood as environmental monitoring, which serves to several purposes identified in the international SEA literature²⁷¹. One of these purposes, i.e. determining the success of mitigation measures, was prioritised to become the main rationale for SEA follow-up. Upon the consultations with the CASP developers it was developed into a common goal for follow-up to SEA and CASP aiming to track the effectiveness of mitigation measures in order to influence positive change or action to improve or remedy environmental conditions (NCC 2005a,195). With that said, establishing the rationales and goal of SEA follow-up was based on the consultations and NCC's internal EA policy. They were consistent with and integrated into the purposes the CASP's evaluation and monitoring program. However, the follow-up goals are defined in general terms that does not allow seeing whether they are well-understood by all

²⁷¹ The CASP's SEA cited the follow-up purposes as defined by Therivel et al. 1993, namely: determining the relevancy/accuracy of SEA predictions; determining compliance with mitigation measures; determining the success of mitigation measures; substantiating recommendations for further mitigation; improvement of the SEA process; overall promotion of long range planning and identification of further studies or research.

stakeholders and decision-makers or not. In fact, the SEA follow-up rationales and goals are specified only in relation to the major implementer, the NCC, but not for other stakeholders. This is partly due to the fact that the CASP's commissioning plan and lower-level Area Plans are to determine specific follow-up rationales and goals that would be clear to the various planning/implementing levels and relate to all relevant stakeholders. The interviewees believe that the CASP's strategic nature restricts the scope of follow-up rationales and goals excluding such goals as e.g., approving technical or scientific knowledge (e.g., 4A, 4H).

2.5.2. Early screening and scoping for SEA follow-up

The necessity of developing and conducting follow-up to the CASP including the SEA is set out in the internal NCC's EA policy (see above). Such directions also stem from higher-level strategies, e.g., the Plan for Canada's Capital requires Master, Sector or Area Plans to prepare more detailed monitoring and evaluation processes (see NCC 1999b,89). Thus, in the absence of legislated requirements, the decision to prepare SEA follow-up was guided by the 'soft' regulations according to the NCC's strategic planning principles and EA policies.

SEA follow-up scoping took place during the concurrent and iterative preparation of the CASP and SEA. The early consideration of the SEA follow-up objectives also contributed to setting the scope and issues of SEA follow-up, while leaving its scale and temporal boundaries the same as for the SEA per se. The scope of SEA monitoring and follow-up was also influenced by the generic NCC's planning and EA policies. The issues to be considered in the SEA monitoring and mitigation were identified based on the extent of the impacts on the pre-defined bio-physical, socio-economic and cultural Valued Environmental Components (VECs). These issues were supposed to be integrated with the CASP monitoring and evaluation program that was to be detailed in the 'commissioning plan'.

2.5.3. Specified design, methods, and coherence of SEA follow-up steps: formulation and implementation

2.5.3.1. Monitoring

The SEA and the CASP monitoring can be classified as a combination of several monitoring types²⁷²:

1. A1. monitoring of actual environmental, socio-economic and institutional changes relevant to the broader context of formulation and implementation of a strategy including the underlying assumptions. In this regard, the SEA and CASP urge the NCC staff to convene periodically and consider trends and patterns, and their implications concerning the integrity of the Plan's goals and policies (NCC 2005a,165);
2. B. monitoring of actual implementation activities within the CASP itself including the mitigation and monitoring actions proposed by the SEA. Regular reviews are envisioned to track these; and
3. C. monitoring of other activities related to the implementation of the strategic initiative. To this end the CASP and SEA follow-up evolve around e.g., the "preparation of successive or related plans and studies, such as Area Plans, site specific plans or strategies, in the Core Area which refine or elaborate upon policies of the Sector Plan" (NCC 2005a,160);

The CASP performance management consists of two components: indicators that measure the success of the plan and those related to the underlying conditions that shape its principles and policies. The former group contains quite general indicators that can be used by the implementers, the public and partners to measure the CASP's success; while the latter is a set of planning indicators and trends, the review of which can help track the progress of the NCC/federal government to sustainability.

SEA follow-up and environmental component. Monitoring and mitigation measures proposed by the SEA were incorporated in the CASP management and evaluation strategies fitting into the planning indicators framework of the CASP. This framework was organised around those policies of the CASP,

²⁷² No measures regarding monitoring types A3 "actual impacts of the strategic initiative" and A2 "progress towards strategic goals" were proposed (see Chapter 2).

for which some residual or potential negative effects were predicted. Therefore, environmental component was well-presented in the SEA follow-up and CASP monitoring framework.

Methods, roles and schedules are not detailed in the CASP and SEA report. Rather it is generally suggested that “[m]onitoring and evaluation should review a...variety of qualitative and quantitative information published by a variety of sources-the public, the media, other governments, universities and research establishments, professional organisations, etc.” (NCC 2005a,165). The plan monitoring and administration are envisioned to be ensured through the revisions of the CASP, the reviews and approvals of projects in the Core Area, project EAs, possible amendments to the CASP/other plans, the preparation of successive/related plans, such as Area Plans, site specific plans or strategies; the launching of new programming initiatives, the commissioning plan (NCC 2005a). Given the strategic nature of the plan, the elaboration of specific monitoring indicators, targets, roles and methods was left to the commissioning plan and other lower level strategies and projects. Despite this, the commissioning plan does not propose any clear schedules, methods and techniques for monitoring and follow-up, presumably in turn leaving them to lower-level strategies and projects (see ECLP 2005).

Implementing monitoring. Two years after the adoption of the CASP, its commissioning plan, although developed was not yet approved. Nevertheless, various parts of the CASP are being implemented, e.g., the Commemorations Plan. The commissioning plan translates each CASP’s policy into the actual actions (plan or program) and defines the priorities in time (4C, 4H). For each action, a leader is assigned and stakeholders are identified; it then is cross-referred to other initiatives/series of actions (4C). Performance reviews are conducted every 3 months and reported annually based on performance indicators and including environmental monitoring in the CASP and other lower level initiatives/projects/plans (4C). According to the commissioning plan various NCC branches, local partners and local planning authorities should contribute to collecting data on the CASP’s monitoring trends and indicators. The data are transferred to the project/policy manager who is responsible for allocating funds to ensure monitoring and follow-up are in place (4A). Whenever necessary, SEA follow-up monitoring can utilise the findings of various surveys conducted by the NCC branch implementing the CASP or other NCC branches (4A, 4J) as well as other Canadian authorities (4J). It is unclear if monitoring data are fully collected externally or internally. Given that different branches are involved in the implementation of the CASP and follow-up monitoring, different NCC staff becomes responsible for reviewing of and reporting on various parts of the delivered actions.

The CASP is supposed to be reviewed every 5 years. Once the NCC and other implementers commit to deliver certain actions including follow-up and monitoring, the financial responsibility that goes together with the commitment becomes an enforcing delivery mechanism (4H). It implies monitoring of all contracts and terms that implement the CASP. The NCC staff also monitors the land misuse and reports to the land manager in cases of violations, so that reactive measures can be taken (4H).

2.5.3.2. Evaluation

The type of SEA follow-up evaluation is a mixture of three evaluation tracks, i.e. evaluation of the CASP’s performance, conformance of other activities relevant to the CASP and its initiatives, and evaluation of actual changes, trends, factors, scenarios aiming “to verify the accuracy and appropriateness of policies, in order to ensure that the Plan responds effectively to change and remains relevant” (NCC 2005a,164) (Chapter 2). The objectives and types of SEA follow-up evaluation are logically bound to SEA and CASP monitoring. In fact, evaluation and monitoring are considered as a single whole and as part of the CASP delivery and land use planning process at the NCC in general.

Methods to evaluate monitoring data on the monitoring areas suggested by the SEA or on the CASP performance monitoring indicators and the measures of success were not documented. The interviews show that SEA follow-up evaluation follows the monitoring actions whenever possible, to enable the responsible officers to “do revisions to see if the plan is consistent with what is going on” (4C). In practice, evaluations take place every 3 months. The commissioning plan does not detail evaluation methods or roles.

Apart from the CASP monitoring and evaluation framework, including SEA follow-up administrative surveys and evaluations are conducted to improve the quality of the CASP delivery. With this purpose, the implementer commissions a “consultant to establish the set of questions” that “ask the users of the

plan” and the NCC “partners which are federal ministries or agencies and others” to identify the difficulties they face when implementing it (4C). The analysis of these surveys serves as the basis for taking performance improvement actions.

2.5.3.3. Management

The SEA follow-up and CASP performance management types represent a combination of all four types of management proposed in the SEA follow-up literature (Chapter 2). Namely, Type I ‘decisions on revising/renewal a PPP’ are to be taken periodically based on the monitoring and evaluation results; Type II ‘direct implementation actions’ are envisioned drawing on the CASP and follow-up monitoring and evaluation framework, which aims to provide “useful information for project managers and decision-makers” (NCC 2005a,165); Type III ‘activities formally controlled’ by the CASP are the essence of its performance given that it is a strategic federal document that guides, allows or restricts the initiatives and developments in the Capital’s Core Area; Type IV. management ‘all other decisions and actions, which are affected by’ the CASP is also relevant as the strategy orients the decisions and actions of managers, agencies and private investors and requires decisions leading to conformance of the CASP with the subsequent actions/decisions at various planning level.

While the variety of follow-up management types is an important feature of the CASP and SEA follow-up, the drawback is that no follow-up management responsibilities are clarified. The details are left to the commissioning plan and lower-order initiatives, according to which the day-to-day administration is accomplished by the plan managers and the managers assigned to the specific CASP programs and actions. They are responsible for decisions based on the ongoing monitoring and data review results (Types II & III) and advise on the review management actions to the higher management, such as unit directors, that further advises to the Advisory Committee on Planning, Design and Realty on ‘strategic’ decisions/revisions (Types I-III). While it is not obviously stated what managerial actions should be coherently bound to monitoring and evaluation results, the interviews suggest that in practices it is so (e.g., 4C, 4H, 4J). Nonetheless, similarly to monitoring and evaluation, a management function suffers from the absence of clear responsibilities.

2.5.3.4. Communication and reporting

According to the EA and planning policies of the NCC, any revision/review of the CASP should undergo consultations with the public. Notably, the CASP developers-implementers suggest that communication as part of the CASP delivery and performance framework can be used to mitigate the potential negative effects of some programs/projects (NCC 2005a). They utilise a “wide range of media tools...available for this purpose, including media releases, direct or targeted mail outs, the NCC website, and on-location notice signs” (NCC 2005a,193). Despite this, no details are available about communicating specifically the results of monitoring, evaluation and managerial decisions on the CASP and follow-up performance to the public. Nonetheless, reporting is acknowledged as an element of the CASP monitoring framework. As per the interviews, there is a clear scheme of internal reporting on the CASP implementation including SEA follow-up which is closely connected to financial reporting. At the mid-operating level, financial reviews take place at three points during the year and include conformance checks against the predefined financial and delivery goals (4J). Based on these, annual budgetary reports are prepared and sent to the managers, who sometimes provide the feedback (4J). In addition to financial reports, the internal performance reports are submitted to the executive management committee, and sometimes to the board of directors, every four months (4C). These are then generalised for annual corporate reports and are sometimes commented upon by the office of the minister of Transport (4C). Further, every year two public meetings are held with the interest groups to inform them about the progress of the CASP and follow-up. The internal reports are not available online; however, the NCC website (www.ncc-ccn.gc.ca), which contains the annual corporate reports and specific CASP documentation, provides the public with the opportunity to comment on the planning initiatives and their progress (4D).

2.5.4. Integration of SEA follow-up with the strategy implementation

As mentioned above, the SEA and CASP were parallel processes, so that the SEA information could be feed into the planning process, ensuring that environmental considerations are built into planning actions for resulting strategies and projects (see NCC 2005a; Noble 2009). Despite this, it was difficult

to coordinate and integrate the SEA results with the CASP (Noble 2009). Nonetheless, the SEA recommendations and proposals as well as the whole SEA process have influenced and improved the CASP. Based on this concurrent integration mode, follow-up to SEA was suggested to be integrated with the performance monitoring of the CASP. Namely, according to the SEA report “SEA monitoring efforts should be fully integrated with plan monitoring” (NCC 2005a,196). This was supported by a specific attitude of the NCC’s CASP development team and SEA consultants to the SEA process in respect to the CASP’s monitoring and evaluation process. They positioned the SEA as “an integral part of the monitoring and evaluation process” that “would raise “awareness of emerging environmental issues/effects” to ensure that “the Plan and any future modifications to it are based on up-to-date environmental principles and objectives” (NCC 2005a,165).

While most interviewees agree that there is the integration of SEA follow-up with the CASP monitoring and performance framework, the opinions about its extent vary. According to some interviewees, the strategic level of the CASP cannot allow for a full and meaningful integration with its follow-up which can occur at other levels and involve completely different level of details, e.g., EIA as part of follow-up would not be integrated with the CASP performance as such but with EMPs of the corresponding projects (4E). According to others, tracking SEA separately has little sense; rather once the CASP has been approved following SEA up should become a part of it. In this sense, SEA follow-up is not downgraded to performance or compliance monitoring; rather it “is actually upgraded to program monitoring, because if e.g., the ministerial approval is received for the proposal which says the program will not have negative impacts if we do mitigation, then not only the EA department but the whole [NCC] system becomes responsible for implementing mitigations” (4C). The others believe that the degree of integration of follow-up with performance management can differ depending on the area/sector and programming level (4A). In case of the CASP, follow-up has to go down the chain of EAs and implementation actions where it would get feedback from land managers and the public (4A).

No details are available on the way how SEA follow-up strategy can be integrated with the CASP at the operation level -due to its strategic nature as said above. However, it is considered to be developed in consistency with both the sustainability principles and internal Environmental Management Policies/strategies of the NCC. Some continuity of integration of follow-up is supposed to be reached by a close cooperation of the staff planning and implementing the subsequent CASP initiatives/actions with the CASP’s lead team.

2.5.5. Consistency of SEA follow-up targets and standards with those of upper, low, or horizontal strategies (Explicitness of tiers)

Differently from many strategic initiatives and SEAs, the CASP and its SEA and correspondingly their follow-up programs do not utilise ‘targets’ as such. The same is relevant for the NCC’s higher-order strategies, such as the Plan for Canada’s Capital and lower-level initiatives, such as Public Programming or Commemorations Plan. Nonetheless, there are strong tiers between the NCC’s initiatives at all levels and between these and the relevant plans of the NCC’s partners in the Core Area. They are established through the cross-cutting objectives, policies and actions that are sketched at the top of the planning pyramid and refined by the lower-level initiatives in a more precise fashion. Particularly, the CASP makes multiple references to the policies/actions of the NCC planning documents, e.g., the Plan for Canada’s Capital; Capital Agenda 21; the Strategic Transportation Initiative; Reflecting a Nation: Creating a Capital Experience for All Canadians; the Federal Employment Strategy and the Ottawa River Corridor Study and vice versa (see NCC 1999b; NCC 2005a; NCC & Patten 2005). The CASP and follow-up delivery is therefore framed by and consistent with the policies in the mentioned plans/initiatives as well as in those of the NCC partners such as federal agencies and Ottawa and Gatineau governments. The CASP and SEA follow-up are implemented in a hierarchical planning system that conforms to the international, national and provincial standards of environmental stewardship; architectural, landscape and urban design quality; protection of buildings and archaeological resources, etc. (see NCC 2005a).

2.5.6. Assurance of open stakeholder cooperation and coordination including consensus building on SEA follow-up method and procedure

Cooperation within the NCC has been traditionally strong and the relevant branches of the NCC effectively collaborate to fulfil their corresponding tasks. According to the interviewees during the preparation of the CASP “people from various departments had to sit around the table and discuss the projects, actions...” (4H), e.g., urban land and transportation departments cooperated and coordinated its actions with the Planning, Design and Land Use, Environmental Services or Capital Interpretation departments. The commissioning plan details the cooperation paths and roles of various NCC branches as per the CASP initiatives drawing on the cooperation patterns established earlier (see ECLP 2005).

Cooperation with other authorities, agencies and the public is essential for the CASP delivery which is repeatedly stated by the interviewees and across the documents (see NCC 2005a). Also, one of the tasks of the CASP is to improve cooperation among various parties who can influence or be influenced by the Plan. Given the long-term vision of the CASP and follow-up, involving the provincial and local authorities in their delivery is acknowledged as important. The same refers to the public including private land owners, tenants, aboriginal groups, e.g., as one interviewee highlighted: “[the NCC] planners are used to working with the public and are very open to public’s opinion” (4D). Overall, cooperation process in SEA follow-up to the CASP seem to be rather effective as it build on the collaboration platform established in the course of the SEA and plan development. Nonetheless, the NCC acknowledges that effectively planning, cooperating and harmonising actions in complex intergovernmental setting is extremely challenging, yet essential for efficient use of limited resources (NCC 2005a,200). While many opportunities for cooperation are envisioned, cooperative and coordinated monitoring and follow-up are still to be developed in the CASP delivery practice.

Consensus-building on follow-up methods has not been that extensive as it could be considering the degree of stakeholder participation. According to the SEA consultants for one of the CASP strategies, they have consulted with a lot of people about the indicators and methods for follow-up and they also had to meet some formal requirements (4B). Meanwhile, the Environmental Services officers have hardly been consulted on the issues (4A). One of them presumes that many consultations on methods for SEA follow-up should have occurred based on the preliminary CASP and SEA drafts, mid-term drafts and full draft and that through this process planners have taken up the recommendations of the consultants (4A). He also stresses that the NCC “cannot spend a lot of money explaining the consultants how monitoring works in the NCC, so we [EA branch] adjust proposals as needed” (4A).

Leadership and coordination. The preparation of the CASP and SEA required the cooperation and participation of federal departments and agencies, provincial and municipal governments, the private sector, and the public, both local and national. This was possible under the strong leadership of the NCC, which has retained its coordinating and leading role in the course of the SEA follow-up and CASP delivery processes.

2.5.7. Adaptability of a PPP and SEA follow-up

2.5.7.1. Feedback from subsequent decision-making to the initial strategy within the SEA follow-up scheme (organisational anchoring)

The CASP is a high-order long-term guiding strategy consisting of many policies and actions that need to be actualised through separately prepared plans and programs. The document is envisioned to be updated at certain review points and as new information from these plans and programs becomes available or new studies are conducted (see NCC 2005a). According to the interviews, the mechanism of feeding the information from subsequent decision-making and actions back to the CASP is well established. E.g., “there is absolutely a feedback from the lower strategies to upper level and if a new proposal is adapted the whole corporation should adjust to it” (4C). This mechanism is essentially a part of the CASP delivery and performance management framework which integrates SEA follow-up as discussed above. The interviewees stress that due to the strategic level of the plan the information cannot be constantly fed into it, rather it is accumulated in the databases to provide the basis for its review (e.g., 4H, 4J). The review is supposed to take place every 5 years; however in case of necessity it can be initiated earlier. Overall, the CASP and follow-up delivery setups allow information from subsequent decision-making, especially from the relevant sub-CASP levels and including other NCC strategies, to be fed into future planning and management. As the most implementers of the CASP have been involved in the development of the Plan, commissioning plans and follow-up, an

organisational anchoring is preserved. It contributes to strengthening the feedforward liaison within the CASP and follow-up implementation and cooperation structures.

2.5.7.2. Provisions for response measures to (non)deliberate situations or external changes

Deliberate adaptive management. As an interviewee confessed: “There is and there is not adaptive management in the plan performance...” (4C). That is in part can be explained by the fact that although the concept of ‘adaptive management’ per se is not mentioned in the SEA and CASP documents, its elements are elaborated and practised to some extent. For example, the CASP performance framework including SEA follow-up considers such deliberate changes as specific amendments to the CASP that can occur as a consequence of a particular land use, design or land transaction proposal or application (NCC 2005a). The influence of the SEA follow-up and CASP monitoring and evaluation scheme are particularly underlined in this context. Namely, changes and amendments to the CASP as it is actualised “can also originate from a monitoring and evaluation exercise” (NCC 2005a,167). The conditions for the responsiveness of the CASP performance extends further in that the changes that occur to the CASP may require reviewing higher-order strategies such as Master Plans, to which the CASP can be considered as a follow-up itself. E.g.:

“Instances may arise when a proposal or request does not comply with the policies of the [CASP]. In these cases, NCC staff will evaluate the request in relation to the provisions of the Plan to determine whether the plan should be amended to permit the particular proposal to proceed. The need for corresponding amendments to other NCC plans, such as the Urban Lands Master Plan or the Plan for Canada’s Capital would also be reviewed (NCC 2005a,161).

Thus, the performance management framework provides for responsiveness to new and updated plans and initiatives prepared by the NCC and NCC’s partners (see NCC 2005a). It therefore can be considered as deliberately adaptive based on the reviews undertaken on a case-by-case basis. However, since no large-scale CASP programs have been implemented yet and since the implemented ones have not confronted its policies, it is hard to judge about the effectiveness of adaptive measures.

Adaptive response to external triggers is acknowledged by the CASP and follow-up developers, however it is not properly elaborated upon in the documents. According to the consultations and interviews, part of the ‘adaptive’ performance management exercise is being reflective to ongoing changes in the broader socio-economic environment of the CASP and follow-up (e.g., 4A, 4C, 4J). According to one interviewee, the NCC “plans themselves are very much oriented on the capital and they cannot but help looking at the economic and broader social trends...We consider if the currency change will influence the outcomes of our programs” (4A). Responses to these external ‘emergent’ conditions and changes are to be given as they occur. No emergency plan exist for the CASP as it is perceived as a rather flexible strategy that can be reshaped with years according to the opinions of the NCC, its partner, other agencies and the public.

2.5.7.3. Revision of SEA follow-up if the contents of a PPP changes

It is extremely rare when emergent changes to the CASP take place that would require changes to follow-up. However, there is a certain bottom-up response loop that makes SEA follow-up responsive to the changes in the CASP (Figure I:12). Namely, emergent changes to the CASP project or programs, such as changes in location, design or size of developments cause revisions to the EIAs or additional environmental studies (e.g., 4A, 4E). All these in turn cause changes to the CASP and follow-up through periodical rather than emergent reviews/updates that occur every 5 years.

Remarkably, according to an interviewee it is easier for follow-up to follow changes in PPP, than for PPP to follow changes in monitoring (4E). Nonetheless, as mentioned above some of the interviewees at the NCC believe that subsequent planning takes into account monitoring and evaluation (e.g., 4A). Overall, due to the strategic level of the CASP minor routine changes to SEA follow-up are not considered to be a routine as long as there is no mechanism or internal regulation that would provide for this. Operating changes are done on site and are assessed by the NCC staff; however, these mostly reach the CASP during the established review times, including SEA follow-up revision. No provisions are set out for conducting additional SEAs if the CASP significantly changes or when it is updated.

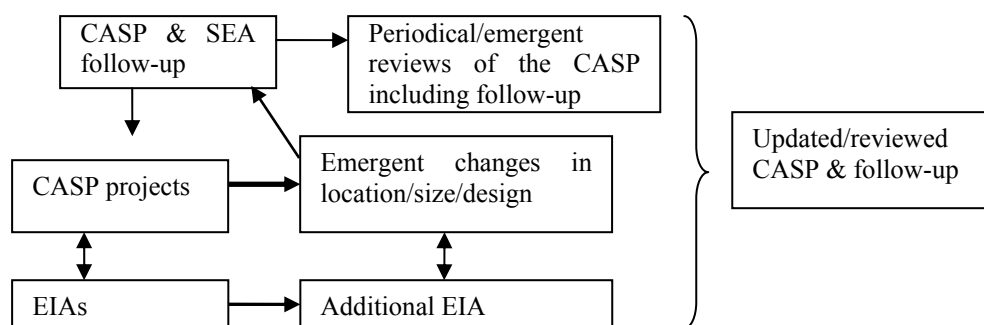


Figure I:12 SEA follow-up response loop in case of changes to the CASP

2.5.7.4. Revision of a PPP if SEA follow-up reveals unexpected impacts

As mentioned above, specific changes to the CASP can be caused by SEA follow-up, especially by the information generated by its and CASP's monitoring and evaluation processes. Changes to the Plan and its initiatives can also stem from assessments/scans of the broader planning environment that are "undertaken periodically to determine which key factors, issues and trends have changed and their effects on the relevance of Plan policies and initiatives" (NCC 2005a,167). While the interviewees suppose that there are possibilities to revise the CASP in case SEA follow-up reveals some unexpected effects, e.g., as per the NCC manager "we would adaptively change the plans, if surveys and observations show the need for this", the mechanism for doing so is not well-established. More elaborated is the mechanism for *periodical assessments of the need* for comprehensive reviews or updates of the CASP, which inter alia should consider the follow-up information. According to it, the CASP is subject to assessment at least every 5 years and if this "assessment indicates a need for a comprehensive review or update, this review or update will be initiated in a timely manner...[otherwise], a comprehensive review or update of the Plan shall be initiated within a 10-year period" (NCC 2005a,167). Another follow-up force that can trigger changes to the CASP is the public. If public opinions and comments obtained through surveys as part of follow-up or expressed by a significant number of interest groups reflect "a big shift" in respect to the CASP delivery, the CASP's strategies/projects will definitely have to be revisited (4D).

2.6. Structural dimension

Here nine variables are evaluated based on the documents, interviews and consultations. Their grades are summarised and given in Chapter 6 and Appendix J.

2.6.1. Statement of strategy (incl. follow-up) ownership and status of the proponents

The development and implementation of the CASP is part of a land use planning mandate of the NCC, which regulates and oversees land use activities on federal lands through the system of approval and permits. The CASP's actions, policies and projects mostly deal with a so-called National Interest Land Mass, the vast majority of which are the lands owned by the NCC and by other federal departments and agencies (see NCC 2005a). Thus, the NCC holds an ownership for the CASP and its SEA follow-up. Since many federal agencies and private land owners are involved in the implementation of the CASP, the NCC tends to closely cooperate and to some extent share with them the ownership over certain follow-up actions, such as monitoring and observations.

The NCC has a status of a Crown Corporation as mandated by the legislation. It itself performs its plans/programs and takes on sub-contractors for only very specific tasks such as design of interpretative media (4J). The status of sub-contractors is clearly specified as well as services/work they provide to the NCC, which monitors their work and controls it through financial leverages. Overall, the statuses of the CASP and follow-up implementers are clear.

2.6.2. Clear timing and position of SEA follow-up

2.6.2.1. in relation to SEA and its strategy formulation and delivery processes

The timing and positioning of follow-up in relation to the CASP and SEA is rather straightforward. The CASP was the first Sector Plan for the Core Area and the third planning exercise after the Vision

and Concept for the Capital's Core Area. The SEA was commissioned by the NCC and prepared by a consultant with involvement of a wide range of stakeholders. Follow-up to SEA was prepared in the spirit of the SEA Directive, the CEAA and the NCC's EA policies and procedures and was proposed to be merged with the CASP implementation. The CASP with a planning horizon of 2025 requires reviews and updating every 5 years based on the assessment of changes or every 10 years if the CASP performs as intended. Follow-up programs are revised accordingly.

2.6.2.2. in the broader context of upper, lower, or horizontal strategies and their EAs

The CASP SEA follow-up reveals stronger hierarchical linkages to higher-order strategies, e.g., the Plan for Canada's Capital, Master Plans. According to the documents and interviews, follow-up to CASP as well as changes to it may cause corresponding amendments to higher-level NCC strategies especially the Urban Lands Master Plan or the Plan for Canada's Capital. This implies that the implementation of the CASP is strongly connected to and thus influences backwards these higher strategies, which it is based on. Meanwhile, the CASP and follow-up delivery is accomplished through lower-level initiatives, e.g., the Public Programming or Commemorations Plans, and is in turn influenced by them. Although the CASP's commissioning plan is not yet approved, this is observable from the experience of some CASP's strategies that are already implemented, e.g., the LeBreton Flats Area Plan (1996), are ongoing or are to be developed (e.g., 4J, 4B). One reason for this is that the CASP is perceived as a "very visionary document and it becomes a tool that different [NCC] branches use to justify long-term capital expenditures" (4J). In the corporate context, "such 'lower'-level plans like CASP provide the corporate plans with the information about what is going on there...and this fits [into]...our plans in a very general sense..." (4F).

It is not explicit how project EIAs and follow-up are administratively tiered upwards to the CASP and follow-up in practice, although some similar tiers are mentioned above. The interviewees nonetheless contend that the CASP and SEA follow-up are linked to "many EIAs below" (4C) and that "[t]here is a structure in here for linking SEA all way down to EIAs. But what we do not have yet is the feedback loop, both from the federal level or from the lands" (4A). The CASP SEA is also tiered to SEAs of higher strategies, e.g., the SEAs of the Plan for Canada's Capital and Master Plans. Hence, the CASP SEA fits into the formal tiered system of PPP and project assessment both downwards and upwards.

Horizontally, the CASP is linked to other Sector Plans within the Urban Lands Master Plan that are built on higher-order policies, e.g., the Plan for Canada's Capital. The linkages between the follow-up to the CASP SEA and these of other horizontal NCC strategies are under-defined. No joint follow-up or monitoring schemes for various sector plans within the Master Plan or for various sub-strategies of the CASP have been identified. The interviewees suggest that no need has arisen for this so far, as information from them is supplied to the common database of the NCC, which while necessitating some improvements, is functional and allows for the exchange of monitoring information (e.g., 4E, 4I).

2.6.3. Acceptance of roles and responsibilities and accountability in SEA follow-up

While personal follow-up roles are not defined in the CASP, they are internally and procedurally allocated to the CASP implementers and stakeholders based on the established cooperation patterns, plan's objectives, etc. As a NCC manager explains when the commissioning plan is being prepared or any sub-initiative to the CASP, it is circulated to the NCC branches that "identify the actions they have to implement in order to delivery the strategy and the recommendations" (4H). Other agencies and partners are also involved in the process of assigning roles and responsibilities to deliver the CASP, which contributes to an increased acceptance of roles and commitment of parties. This is encouraged by the NCC, which seeks to work with all levels of government and various sectors to establish shared and independent responsibilities and joint management tools (see NCC 2005a).

The NCC staff is responsible for the CASP and follow-up implementation as well as for the annual budget allocation exercise. In some cases, this may include leading and coordinating the activities of other agencies, private sector investors or sub-contractors. The CASP's routine administration is a responsibility of the main implementing branch of the NCC, which takes the general accountability for the CASP actions that it has identified in the Plan and committed to deliver. The managers of this branch are responsible for putting forward the CASP activities according to the predefined priorities

and securing their consistency with the CASP, which serves as a “support tool” (4H). If these activities necessitate EAs, the manager initiates them. The branch managers are accountable to the Directors and Vice-Presidents of the Branches for the accomplished actions and through them to the Executive Management Committee and the Board of Directions.

The overall corporate responsibility lies with the whole NCC, which is accountable to the Minister of Transportation and through him/her to the Parliament of Canada as well as to the public, however with a different level of details. Internal accountability is maintained through the system of internal reporting on performance indicators, which typically is not revealed to the public due to its too administrative, detailed and technical character (4C).

2.6.4. Transparency for SEA follow-up delivery

When planning and implementing its initiatives the NCC is guided by the aspiration to meet high expectations of the public for transparent, accessible and accountable decision-making (see NCC 2005a). To ensure this the three-phase CASP planning process evolved various participatory measures, e.g., workshops, open houses and meetings.

According to the documents, no specific consideration is given to transparency issues in the post-decisional CASP stage. Nonetheless, according to the interviews the NCC board of Directors annually meets with the public to inform them on the overall NCC activities (4D). Further, two specific public meetings are held per annum with the interest groups to inform them about the CASP progress (4C). Thus, transparency for the CASP and follow-up delivery draws upon the above participatory and control/accountability mechanisms such as possibilities for public involvement in the course of the implementation especially through the lower-level planning processes, website posts, internal and external accountability and control of the implementation by the designated NCC branches. It should be noted though that while some information about the CASP and follow-up progress has a greater transparency to the public through public reports and the website, more specific information is used internally and is not disclosed. It might be requested by the stakeholders if needed.

2.6.5. Commitment to SEA follow-up and acknowledgement of non-compliance

According to the interviewees the very fact that the NCC regularly undertakes SEAs, although it is not obliged to, points out to its traditional commitment to the environmental and health protection and sustainable development (4A). The commitment of the NCC to fulfil its obligations stipulated in the CASP including performance monitoring, reporting and reviewing and follow-up is highlighted by many interviewees (e.g., 4H, 4C, 4J) and is repeatedly mentioned in the documents, e.g., the CASP “commit[s] to monitoring programs that implement the tenets of sustainable development” (NCC 2005a,136). The SEA recommendations are perceived as part of the NCC policy decision to safeguard the environment and as an essential part of the CASP implementation. “The NCC is concerned with the environment; if there is a requirement coming with the SEA to follow-up, NCC looks at this very seriously and...[seeks] to fulfil [it] to high standard” (4C). Thus, the NCC clearly commit to SEA follow-up as part of the CASP. It also promotes the idea of joint commitment of various authorities and private merchants and owners to the CASP implementation and follow-up (see NCC 2005a).

No account of consequences of non-implementing follow-up programs or non-complying with the SEA recommendations is taken in either the CASP or its EA. Generally, the interviewees acknowledge that the obvious consequence of non-implementing SEA follow-up is the failure of the CASP, to which follow-up is an important constituent (4A). At the mid-management and operation level, the inconsistencies with the follow-up and performance schemes are addressed internally and need to be explained. Given the absence of formal sanctions and a good image of the NCC as well as its desire to be open and accountable to the public and government, the only penalty for non-compliance would be the embarrassment to the NCC that may compromise its reputation (e.g., 4A, 4E, 4F).

2.6.6. Competence (managerial) and adequate resources for SEA follow-up

Given the strategic nature of the CASP and a low level of detail in the commissioning plan, no reference is made to human, financial or time resources needed to actualise the CASP and follow-up. The interviews nonetheless demonstrate that as part of the CASP the feasibility of SEA follow-up was considered early in the parallel CASP and SEA development process (e.g., 4C, 4H). Obtaining

resources needed to effectively deliver the plan was one of the concerns of the CASP developers, who at the very outset of the planning process acknowledged their shortage (see NCC 2005a). Funding basically comes from the federal government (4D) as well as from the corporate reserves (4C) and is allocated to particular programs/projects by the CASP managers and managers from other NCC branches responsible for the CASP's sub- or parallel strategies (4J). Resources for SEA follow-up and monitoring, if they are mandated by e.g., negative environmental effects are allocated within the planning initiatives and the responsibility is usually assigned to a federal agency or department, rather than to external consultants (4A). However, budgets for follow-up were not set out in the CASP and SEA documents. The lack of financial resources remains a problem to follow-up (4A).

Skill and competences, including managerial, are not viewed as a problem by the interviewees. The NCC has a "dedicated staff and rotation is not high [t]here -a person can stay [t]here for a whole life-time" (4J). As a NCC manager contends "the NCC has a long institutional memory and one of the best records of keeping people on staff, it is very much a family" (4A). While preserving the institutional memory and continuity of staff, the NCC at the same time, takes on "a lot of young people who learn a lot" from the senior staff (4J).

2.6.7. Networking for credibility and mutual trust

Within the NCC, the exchange of experiences and follow-up data is accomplished both formally and informally. Formal networks comply with the organisational structure and procedural sub-ordination of the NCC. Informal networks are formed and sustained by the NCC staff that stayed with the corporation for 15-20 years or more. They maintain the organisational climate of the NCC and teach the newcomers. Implementation of the CASP is understood as an ongoing informal or formal dialog of managers from various NCC branches who participate in its commissioning and delivery (4A).

Outside the NCC, formal networks are established between the NCC and its partners engaged in the CASP and SEA follow-up. These build on the cooperation schemes developed and deployed during the preparation of the CASP and SEA. As part of the CASP performance and follow-up framework, the NCC promotes formal networking through the concepts of awareness, knowledge, integration and recognition (NCC 2005a). These primarily aim to develop in the federal and municipal partners, stakeholders and the general public the awareness of the CASP and its policies and progress in order to be able to integrate these with their own strategic initiatives/projects and to ensure that interest groups and the public are satisfied that their perspectives were included in the plan (NCC 2005a, 165-6). These formal follow-up policies of the NCC thus support the credibility of the CASP and follow-up as well as of the NCC itself, contribute to a better cooperation and improve mutual trust among the stakeholders. The contribution of informal networks in the broader context is unclear.

2.6.9. Provisions and possibilities for capacity-building (education, training)

Neither the CASP nor the SEA contains any provisions or recommendations for capacity-building for the implementers of SEA follow-up. Capacity-building elements were presumably left to the commissioning plan, which however hardly dealt with these. According to the interviewees, given the low level of the NCC staff's rotation and a high level of the competence there is not an urgent necessity to train and educate the NCC staff with regard to implementing the CASP or follow-up (4C). Nonetheless, the interviewees acknowledge that there are certain possibilities for learning and training, which however do not directly relate to the CASP and follow-up, but to the occupations and the necessary qualifications of the NCC personal. E.g., the staff is sent to conferences and professional associations (4J) and, if needed, they take special "and not very expensive" training programs on SEA, EA, and monitoring at the EA agencies or consultants (4A). The questions of capacity-building are not the ones that are envisioned beforehand, but can be considered as the associated problems emerge. If the necessary skills appear to be a part of the base knowledge, then the Director will send his/her staff to the corresponding institution to learn; if it is peripheral and money is available then a person might also go to learn (4A). The interviewees suppose that in case of necessity consultants can be involved in the implementation or the CASP and follow-up. They acknowledge that there is a low level of cooperative learning resulting from institutional brokering and that they "need to work more with universities,...experts..."(4J).

APPENDIX J INDIVIDUAL CASE-LEVEL DISPLAYS FOR THE CASE-ORDERED SUMMARY OF SEA FOLLOW-UP APPLICATIONS

Note: the computing rules are explained in Chapter 3; the calculations were accomplished in Excel.

Grade		Case 1: Merseyside LTPs									
		Context		Process				Structure			
				#Grades		Total Values		#Grades		Total Values	
		#Grades	Total Values	design	performance	design	performance	design	performance	design	performance
A	5	5	25	5	5	25	25		2		10
B	4	4	16	4	7	16	28	5	5	20	20
C	3	1	3	2	2	6	6		2		6
D	2										
E	1										
F	0							1			
N/A	-	Σ=	44	Σ=		47	59	Σ=		20	36
?	-	Av. Value	4.4	Av. Value		4.27	4.21	Av. Value		3.33	4
		Av. Grade	B	Av. Grade		B	B	Av. Grade		B	B
		Norm. Value	1.32	Norm. Value		1.7		Norm. Value		1.1	
		Final Value					4.12				
		Final Grade					B				

Grade		Case 2: Lancashire LTPs									
		Context		Process				Structure			
				#Grades		Total Values		#Grades		Total Values	
		#Grades	Total Values	design	performance	design	performance	design	performance	design	performance
A	5	5	25	3	5	15	25		1		5
B	4	4	16	2	4	8	16	4	5	16	20
C	3	1	3	6	5	18	15	1	2	3	6
D	2										
E	1								1		1
F	0							1		0	
N/A	-	Σ=	44	Σ=		41	56	Σ=		19	32
?	-	Av. Value	4.4	Av. Value		3.73	4	Av. Value		3.17	3.56
		Av. Grade	B	Av. Grade		B	B	Av. Grade		C	B
		Norm. Value	1.32	Norm. Value		1.55		Norm. Value		1.01	
		Final Value						3.87			
		Final Grade						B			

Grade		Case 3: Blackpool LTPs									
		Context		Process				Structure			
				#Grades		Total Values		#Grades		Total Values	
				design	performance	design	performance	design	performance	design	Performance
A	5	5	25	2	4	10	20		1		5
B	4	4	16	4	3	16	12	2	4	8	16
C	3	1	3	5	7	15	21	3	3	9	9
D	2										
E	1								1		1
F	0							1			
N/A	-	Σ=	44	Σ=		36	48	Σ=		17	31
?	-	Av. Value	4.4	Av. Value		3.73	3.79	Av. Value		2.83	3.44
		Av. Grade	B	Av. Grade		B	B	Av. Grade		C	B
		Norm. Value	1.32	Norm. Value		1.50		Norm. Value		0.94	
		Final Value						3.76			
		Final Grade						B			

Grade		Value		Case 4: Blackburn with Darwen LTPs									
				Context		Process				Structure			
						#Grades		Total Values		#Grades		Total Values	
						design	performance	design	performance	design	performance	design	performance
A	5	5	25	3	4	15	20		1		5		
B	4	4	16	7	8	28	32	3	6	12	24		
C	3	1	3	1	2	3	6	2	2	6	6		
D	2												
E	1												
F	0							1					
N/A	-	Σ=	44	Σ=		46	58	Σ=		18	35		
?	-	Av. Value	4.4	Av. Value		4.18	4.14	Av. Value		3	3.89		
		Av. Grade	B	Av. Grade		B	B	Av. Grade		C	B		
		Norm. Value	1.32	Norm. Value		1.66		Norm. Value		1.03			
Final Value						4.02							
Final Grade						B							

Case 5: FMP, Saskatchewan											
Grade	Value	Context		Process				Structure			
		#Grades	Total Values	#Grades		Total Values		#Grades		Total Values	
				design	performance	design	performance	design	performance	design	performance
A	5	3	15	2	4	10	20		2		10
B	4	5	20	6	8	24	32	4	4	16	16
C	3	2	6	3	2	9	6	2	3	6	9
D	2										
E	1										
F	0										
N/A	-	$\Sigma=$	41	$\Sigma=$		43	58	$\Sigma=$		23	35
?	-	Av. Value	4.1	Av. Value		3.91	4.14	Av. Value		3.67	3.89

<i>Av. Grade</i>	<i>B</i>	<i>Av. Grade</i>	<i>B</i>	<i>B</i>	<i>Av. Grade</i>	<i>B</i>	<i>B</i>
Norm. Value	1.23	Norm. Value	1.61		Norm. Value	1.13	
Final Value				3.97			
Final Grade				B			

		Case 6: CASP, Ontario-Québec									
Grade	Value	Context		Process				Structure			
		#Grades	Total Values	#Grades		Total Values		#Grades		Total Values	
				design	performance	design	performance	design	performance	design	performance
A	5	3	15						2		10
B	4	3	12	5	8	20	32	2	6	8	24
C	3	2	6	3	6	9	18	4	1	12	3
D	2	2	4	3		6					
E	1										
F	0										
N/A	-	Σ=	37	Σ=		35	50	Σ=		20	37
?	-	Av. Value	3.7	Av. Value		3.18	3.57	Av. Value		3.33	4.11
		Av. Grade	B	Av. Grade		B	B	Av. Grade		C	B
		Norm. Value	1.11	Norm. Value		1.35		Norm. Value		1.12	
		Final Value						3.58			
		Final Grade						B			

Background summary-table of design/performance of SEA follow-up dimensions across cases

Normalised values*	Context	Process	Structural
Merseyside LTPs	1.32	1.7	1.1
Lancashire LTPs	1.32	1.55	1.01
Blackpool LTPs	1.32	1.50	0.94
Blackburn with Darwen LTPs	1.32	1.66	1.03
PP FMP, SK	1.23	1.61	1.13
CASP, ON/QU	1.11	1.35	1.12

* Normalised values are not equivalent to grades; their case-wise sums constitute Final Values (see tables above).

Best performing/developed

Worst performing/developed

APPENDIX K STRENGTHS AND WEAKNESSES OF SEA FOLLOW-UP CASES

a) Process dimension

	Strengths	Weaknesses
Merseyside LTP	<ul style="list-style-type: none"> • Legal follow-up screening requirements • Follow-up scope outlined early • Clear monitoring methods, roles & schedules • Clear evaluation methods & schedules • Somewhat defined management scheme • Strong design/delivery of communication • Designed/maintained consistency of follow-up targets & objectives with those of the related initiatives/regulations • Good interior integration • Strong stakeholder cooperation • Strong consensus-building on SEA follow-up • Adaptive management foreseen/practised • Some feedback to LTP from subsequent actions 	<ul style="list-style-type: none"> • Vague links between the goals of follow-up & of performance monitoring • Adaptability constrained by budget year • Revisions of the LTP or follow-up constrained by long political processes, finances & technicalities depending on the significance of changes
Lancashire CC LTP	<ul style="list-style-type: none"> • Clear follow-up goals/rationales for stakeholders • Legal follow-up screening requirements • Follow-up scope outlined early • Most monitoring methods, frequencies, risks indicated • Strong design/delivery of communication • Designed/maintained consistency of follow-up targets & objectives with those of the related initiatives/regulations • Strong stakeholder cooperation • Strong consensus-building on SEA follow-up • Some feedback to LTP from subsequent actions 	<ul style="list-style-type: none"> • Unclear monitoring schedules/roles • Management details are not specified • Weak/late response to external/emergent situations • Adaptability restricted by budget year • Revisions of LTP or follow-up constrained by finances & technicalities
Blackpool LTP	<ul style="list-style-type: none"> • Clear follow-up goals/rationales for stakeholders • Legal follow-up screening requirements • Holistic approach to monitoring & management incl. cumulative, indirect, etc. effects & methods, frequencies, risks • Strong design/delivery of communication • Designed/maintained consistency of follow-up targets & objectives with those of the related initiatives/regulation • Strong stakeholder cooperation • Adaptive management foreseen/practised • Some feedback to LTP from subsequent actions 	<ul style="list-style-type: none"> • Late scoping due to the late SEA • Undefined monitoring schedules/roles • Management details are not specified • Weak consensus-building on SEA follow-up methods/delivery • Adaptability restricted by budget year • Revisions of LTP or follow-up constrained by finances & technicalities
Blackburn with Darwen LTP	<ul style="list-style-type: none"> • Legal follow-up screening requirements • Follow-up scope outlined early • Specified monitoring methods, risks, outcomes, funding • Evaluation mandates/methods outlined • SEA follow-up/LTP decision-making scheme outlined • Strong design/delivery of communication • Designed/maintained consistency of follow-up targets & objectives with those of the related initiatives/regulation • Strong stakeholder cooperation • Integrated in-house SA/LTP process=> a set of SA follow-up & LTP performance indicators • Strong consensus-building on SEA follow-up • Some feedback to LTP from subsequent actions • Changes in the LTP considered as they emerge=> follow-up changes • Significant env-al issues=> LTP actions modified 	<ul style="list-style-type: none"> • Unclear follow-up goals/rationales • Unclear links between negative effects and LTP indicators • Unspecified monitoring schedules/roles • SA follow-up dissolved in the LTP performance regime • Weak/late response to external/emergent situations • Adaptability constrained by budget year
PP FMP, SK	<ul style="list-style-type: none"> • Clear follow-up goals/rationales for stakeholders (formed top-down & bottom-up) 	<ul style="list-style-type: none"> • Unspecified methods for monitoring indicators (developed internally)

	Strengths	Weaknesses
	<ul style="list-style-type: none"> • Formal/case-specific screening provisions • Follow-up scope developed early • FMP performance management relies on monitoring/evaluation • Strong design/delivery of communication • Good interior integration • Strong adaptive management • Some feedback to CASP from subsequent actions • Additional EAs to address FMP changes • Modifying FMP actions formally required if follow-up/scientific studies reveal negative effects 	<ul style="list-style-type: none"> • Undefined evaluation methods/schedules (up to external experts/internal procedures) • Weak cooperation with Aboriginal people (otherwise good stakeholder cooperation) • Weak/slow reaction to external factor
CASP, ON/QU	<ul style="list-style-type: none"> • Internal/soft' screening provisions • Follow-up scope outlined early • Good interior integration reinforced by internal policies • Strong stakeholder cooperation • Some feedback to CASP from subsequent actions/decisions • Adaptive management foreseen/practised 	<ul style="list-style-type: none"> • Vague follow-up goals/rationales • Undefined monitoring methods, roles, schedules • Unspecified evaluation methods, roles, schedules • Unclear links between management & monitoring/evaluation • Limited reporting/communication • Weak consensus-building • Revisions of CASP or follow-up constrained by review periods, weak mechanisms, finances & technicalities
	Strength or weakness similar for ALL cases	Strength or weakness similar for the UK cases only
		Strength or weakness similar for Canadian cases only

b) Structural dimension

	Strengths	Weaknesses
Merseyside LTP	<ul style="list-style-type: none"> • Clear collective & personal ownership for each performance monitoring indicator • Explicit corporate & personal accountability • Clear commitment to accomplish SEA/HIA follow-up as part of the LTP& understanding of non-implementation threats • Strong internal formal & informal networks 	<ul style="list-style-type: none"> • Missing mechanism for the enforcing accountability for follow-up • Unclear links between SEA follow-up & the related (esp. horizontal) strategies • Unclear links between SEA follow-up & that of the related strategies • Limited financial, human & technical resources (vary across the partners-proponents) • No provisions for capacity-building
Lancashire CC LTP	<ul style="list-style-type: none"> • Many forms of formal & informal networks 	<ul style="list-style-type: none"> • Unclear ownership for most follow-up/LTP performance indicators • Unclear links between SEA follow-up & the related (esp. horizontal) strategies • Unclear links between SEA follow-up & that of the related strategies • Weak corporate & personal accountability • Limited financial, human & technical resources • No provisions for capacity-building
Blackpool LTP	<ul style="list-style-type: none"> • Many forms of formal & informal networks 	<ul style="list-style-type: none"> • Unclear ownership for most follow-up/LTP performance indicators • Unclear links between SEA follow-up & that of the related strategies • Weak corporate & personal accountability • Inexplicit corporate commitment & weak personal commitment/motivation • Undefined threats of non-delivering follow-up • Limited financial, human & technical resources

	Strengths	Weaknesses
		<ul style="list-style-type: none"> • <i>No provisions for capacity-building</i>
Blackburn with Darwen LTP	<ul style="list-style-type: none"> • Sufficient professional/managerial expertise • Funding for monitoring/follow-up defined in the LTP investment program • Strong formal and 'semi-formal' networks 	<ul style="list-style-type: none"> • Unclear links between SEA follow-up & that of the related strategies • Weak corporate & personal accountability • Undefined threats of non-delivering follow-up • Limited financial & technical resources • Limited informal networks • <i>No provisions for capacity-building (might be irrelevant)</i>
PP FMP, SK	<ul style="list-style-type: none"> • Clear principal & shared ownership over the strategy & for follow-up indicators/actions • Explicit corporate & personal accountability • Multi-faceted transparency for follow-up • Good formal & informal networking • Clear commitment to SEA follow-up & understanding of non-implementation threats 	<ul style="list-style-type: none"> • Unclear links between SEA follow-up & the related (esp. horizontal) strategies • Unclear links between SEA follow-up & that of the related strategies • <i>Unspecified budgets for follow-up</i> • Limited financial & technical resources
CASP, ON/QU	<ul style="list-style-type: none"> • Clear principal & shared ownership over the strategy & follow-up (not indicators/actions) • Clear commitment to SEA • Idea of joint commitment among the stakeholders promoted • Internal formal follow-up policies support formal/informal networking 	<ul style="list-style-type: none"> • Unclear links between SEA follow-up & that of the related strategies • Limited personal accountability • Undefined threats of non-delivering follow-up • <i>Unspecified budgets for follow-up</i> • Limited financial & human resources • No provisions for training, institutional brokering or capacity-building for SEA follow-up
	Strength or weakness similar for ALL cases	Strength or weakness similar for the UK cases only
		Strength or weakness similar for Canadian cases only

APPENDIX L OBSTACLES TO SEA FOLLOW-UP

a)

Context problems/cases	Mersey-side LTP	Lanca-shire CC LTP	Black-pool LTP	Blackburn with Darwen LTP	PP FMP, SK	CASP, ON/QU
Formal provisions:						
Lack of legislated provisions					X*	X
Limited (generic) manuals & guidelines					X	X
Weak enforcement	X	X	X	X	X**	X
High changeability of SEA& planning guidance	**					
Exterior integration:						
Constrained integration (vertical coordination, technicalities)	X	X	X	X	X**	X
Different methods/formats					**	
'X'-observed/identified by the author *-mentioned by an interviewee/consultee; ** -mentioned by at least two interviewees/consultees						

b)

Process (& technical) problems/cases	Mersey-side LTP	Lanca-shire LTP	Black-pool LTP	Blackburn with Darwen LTP	PP FMP, SK	CASP, ON/QU
Follow-up goals/rationales:						
Unclear goals				X		X
Not linked to performance monitoring goals	X					
Competing priorities (follow-up vs. strategy)						*
Core SEA follow-up activities:						
Monitoring schedules/roles	X	X	X		X	
Monitoring methods					X	X
Evaluation methods		X			X	X
Management scheme/mandate		X	X			
Incoherent management, monitoring & evaluation		X	X(possibly)	X (possibly)	X**	X
Data storage & processing formats		*	*		X	
Inaccurate/unreliable data	**				**	
Cause-effect relationship						
Interior integration:						
Unclear inclusion of SEA results in strategies	X(partial)	X(partial)	X	X		
Loss of environmental components	X(some kept)	X(some kept)		X(blurred)		
Dissolution of follow-up in strategy performance	X(possibly)	X(possibly)		X		
Cooperation:						
Consensus-building			X			X
Stakeholder involvement					X	
Follow-up/strategy adaptability/responsiveness						
Weak/late response to external/emergent situations	X	X	X	X	X	X
Budget year constraint	X**				X*	
Formal reviews	X**	X	X			X
Long political processes	X**	X	X			X
Limited finances/reallocation possibilities						
Technicalities						
'X'-observed/identified by the author *-mentioned by an interviewee/consultee; ** -mentioned by at least two interviewees/consultees						

c)

Structural (& institutional) problems/cases	Mersey-side LTP	Lancashire LTP	Black-pool LTP	Blackburn with Darwen LTP	PP FMP, SK	CASP, ON/QU
<u>Ownership, accountability & commitment:</u>						
Ownership for follow-up/performance indicators		X	X	X		
Corporate accountability		X	X			X
Personal accountability		X	X			
Corporate commitment				X		
Personal commitment & motivation			X*			
<u>Understanding, interest & support:</u>						
Articulation of threats of non-implementing follow-up	X			X		X
Lack of public interest/willingness to participate	*	*				
Low (public) concern/awareness about the environment	*	*	*			
Lack of local political support	**					
Understanding the necessity/benefits of SEA follow-up	*		X			X*
<u>Follow-up position:</u>						
Fit between a SEA follow-up & the related 3D-strategies	X	X			X	
Fit between SEA follow-ups to a given & the related 3D-strategies	X	X	X	X	X	X
Links from SEA to EIA						*
<u>Resources:</u>						
Limited financial resources	**	X*	X*		X*	X*
Limited human resources	**	X*	X*	X		X*
Limited technical resources	**	X*	X*	X*	X*	
<u>Capacity-building</u>	X	X	X	X(maybe N/A)		X
'X'-observed/identified by the author *-mentioned by an interviewee/consultee; **-mentioned by at least two interviewees/consultees						

APPENDIX M FLOWCHART OF THE SEA FOLLOW-UP FRAMEWORK COMPONENTS

